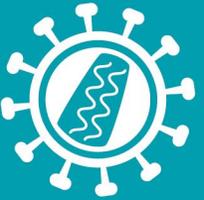
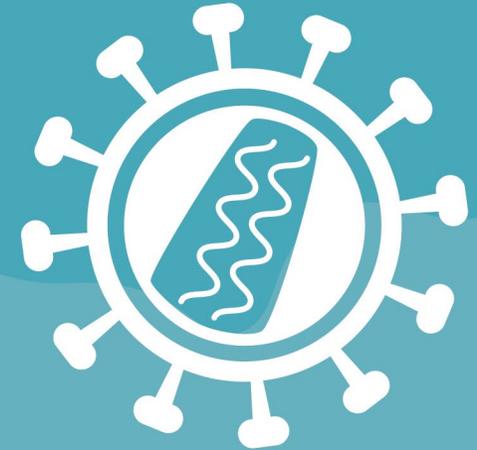


BHIVA 

British HIV Association

2022 Spring Conference

Wed 20th - Fri 22nd April
Manchester Central, Manchester



Death certification – facts and practicalities

Professor Sebastian Lucas

Guy's & St Thomas' NHS Foundation Trust, UK

This educational event is supported by an unrestricted medical education grants from





Death certification – facts and practicalities

Sebastian Lucas

Dept of Cellular Pathology

[ex-Morbid Anatomy]

St Thomas' Hospital, London



Conflict of Interest

In relation to this presentation I declare that I have no conflict of interest

Speakers are required by the Federation of the Royal Colleges of Physicians to disclose conflicts of interest at the beginning of their presentation, with sufficient time for the information to be read by the audience. They should disclose financial relationships with manufacturers of any commercial product and/or providers of commercial services used on or produced for patients relating to the 36 months prior to the event. These include speaker fees, research grants, fees for other educational activities such as training of health professionals and consultation fees. Where a speaker owns shares or stocks directly in a company producing products or services for healthcare this should also be declared. Finally, other conflicts of interest including expert functions in health care or healthcare guidance processes should be declared (eg if the professional is a member of a health board). The Federation considers it good practice to also make speakers' disclosures available in digital format(s) relating to the educational event.



Remit

Death certification

Coroners & autopsy

Medical Examiners

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- **What and why death certification?**
- Since 1836, a legal requirement for a statement on why a person died
- Required to register a death
- National system of Registration of Births & Deaths
- Relatives receive from the Registrar a document enabling them to dispose of a body
 - Burial
 - Cremation – 1894-1902
 - Expatriation



Death certificate

To be completed by a registered medical practitioner

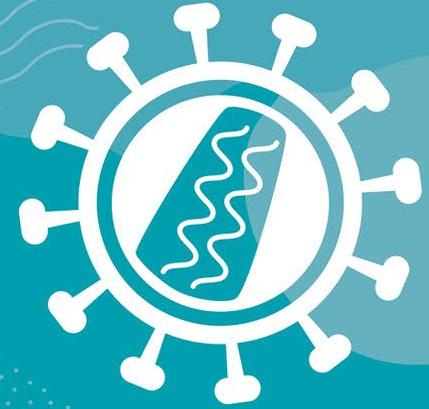
To 'the best of their knowledge and belief'

ie absolute certainty is not expected

Doctor must have seen the deceased <15 days before death

Has to be a 'natural cause of death'

The Registrar may bounce a draft certificate back to the coroner



Format (WHO – ICD terminology)

1a. Event/disease...

1b. Due to....

1c. Due to...

2. Contributory event/disease, eg why died when
they did



Acceptable by the Registrar?

- Male 32yr
- Renal failure
- Biopsy: HIV-associated nephropathy?
- HIV test +ve
- Dies

- “1a chronic renal failure”
- Should not have been accepted:
mode of death without an
underlying stated pathology is not
acceptable

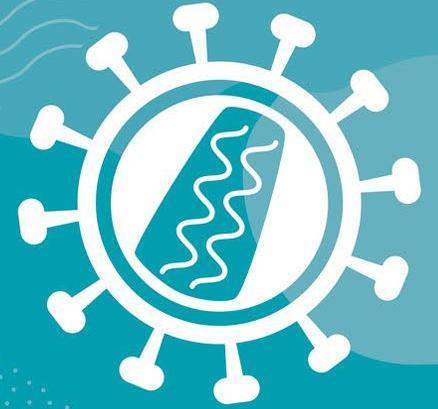


Acceptable by the Registrar?

- Male 32yr
- Renal failure
- Biopsy: HIV-associated nephropathy?
- HIV test +ve
- Dies

- 1a chronic renal failure
- 1b. HIV disease

- Would be fine



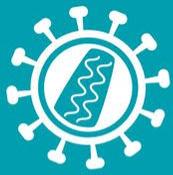
Acceptable by the Registrar?

- Male 32yr
- Recent diagnosis of HIV
- Lays down in front of a train

- ie suicide

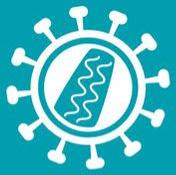
- Not a natural cause of death

- Has to be reported to a coroner



Unnatural death?

- Trauma & self harm (suicide)
- Poisoning and drug toxicity – medical, illicit & alcohol
- Mishap in health care – medical & surgical
- Death in state custody
- Neglect – self- or health care-related
- Death related to employment



Algorithm of what happens after a death

Cause of death **known** and **natural** → write death certificate

Cause of death **unknown** and/or **un-natural** → refer to Coroner

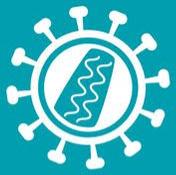
→ negotiate, you write the DC

Coroner → commissions an autopsy [relatives cannot prevent]

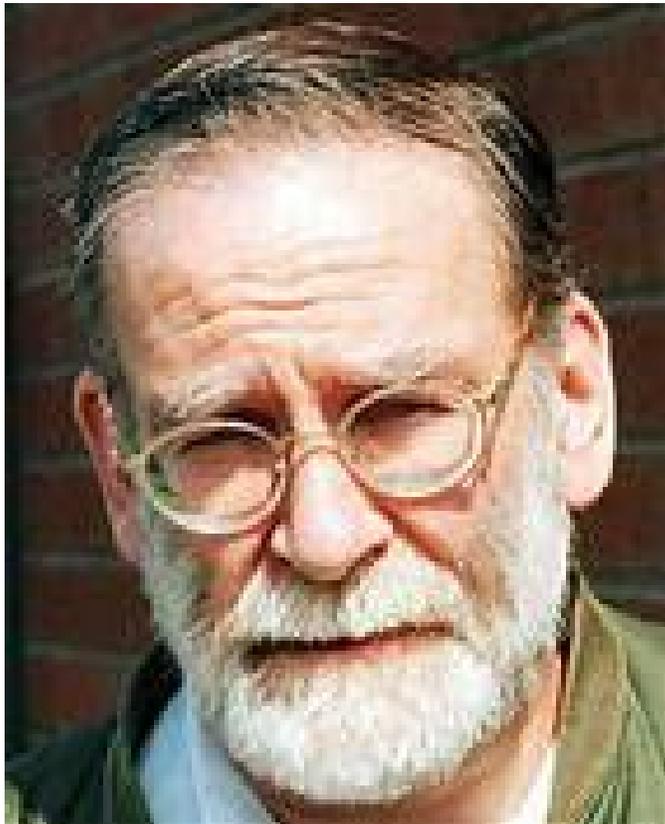


Autopsy – pathologist writes the death certificate
+/- an inquest

At inquest, the wording may be changed



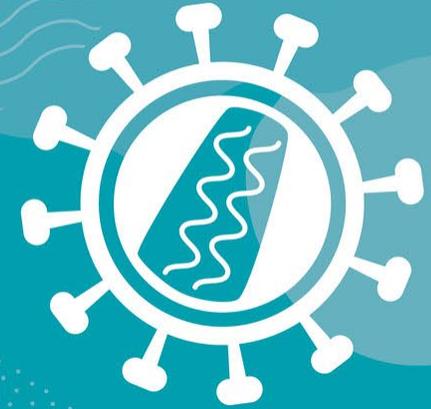
Two events have changed things:



Harold
Shipman

COVID-19





- Shipman forced increased scrutiny into all deaths

Developed into the NHS programs of:

- Accountability
- Learning from deaths
- Duty of candour over medical errors
- *Numerous recent reports of institutional failings*
- Coroner & Justice Act 2009 introduced Medical Examiners



- **Medical Examiners**
- Qualified >5 years, any speciality
- Employed by Trusts, but function independently
- Review – in real time – all deaths that have not gone directly to a coroner

- MEs are rolled out across nearly acute hospital Trusts
- To be introduced into General Practice for community deaths in future
 - Health & Care Bill, clause 143



- Medical Examiners' remit
- Consider the draft death certificate
- Should the death be referred to the coroner
- Are there clinical governance concerns over the death
- MEs will obviate the need for cremation certification checks



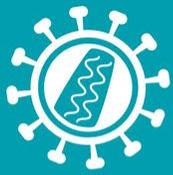
- Medical Examiners' process
- Proportionate review of the medical records
- Interaction with the treating doctors
- Interaction with the family - do they have concerns
- End result: modify/improve the death certificate if necessary



- Medical Examiners' impact – *still being evaluated*
- Fewer deaths in hospital referred to coroners
 - But they are more complicated
 - In ~10%, potential harm identified
- Changes in draft DCs:
 - >80% in minor wording
 - >30% major change in the cause of death
- Fewer litigation claims against hospitals
 - Families are told the truth



- COVID-19 impact since April 2020 (Chief Coroner guidance)?
- Reduced proper scrutiny of deaths – BEING REVERSED
- Extended the qualification period: 2 now 4 weeks post-death - STAYS
- Any doctor could sign a death certificate – REVERSED TO DOCTOR WHO SAW THE DECEASED
- Digital death certification to be introduced



That concludes my formal presentation on death certification

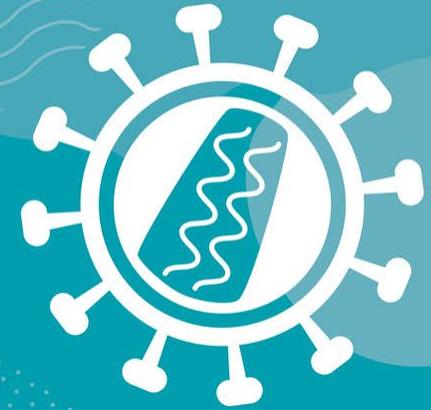
Three practical points about the case and HIV disclosure:

- If relatives do not/would not wish 'HIV/AIDS' to appear on a death certificate, how do you square that with 'to the best of your knowledge and belief'?
- If there is an autopsy and HIV is irrelevant to the cause of death, there is no need to mention it in the cause of death.
- If HIV is relevant to cause of death, it gets put in the cause of death in all coronial autopsies even if the relatives object; coroners are firm on this point - and so am I.

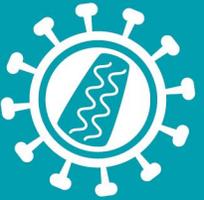


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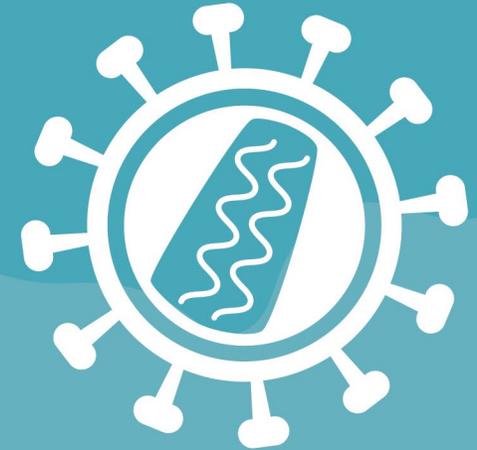
Thank you for listening

BHIVA 

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Defining preventable & HIV-related deaths

Dr Sara Croxford

Principal Scientist, UK Health Security Agency, UK

This educational event is supported by an unrestricted medical education grants from





Defining and monitoring preventable HIV-related mortality

Dr Sara Croxford
Principal Scientist
UK Health Security Agency
sara.croxford@phe.gov.uk



Conflict of Interest

In relation to this presentation I declare that I have no conflict of interest

Project overview

- **Background:** Various organisations, projects and countries have targets of achieving zero HIV-related deaths but clear, detailed definitions are lacking

Aim: to develop a consensus definition of preventable, HIV-related mortality for public health monitoring and identifying areas for intervention to improve patient care

- Secondary purpose: provide guidance to clinicians completing death certificate details relating to cause of death and contributory factors, or when reviewing local data
- Collaboration between UKHSA, BHIVA, EACS and Fast Track Cities London (funder)

Project components

Rapid literature review scoping how preventable, HIV-related death is currently being defined

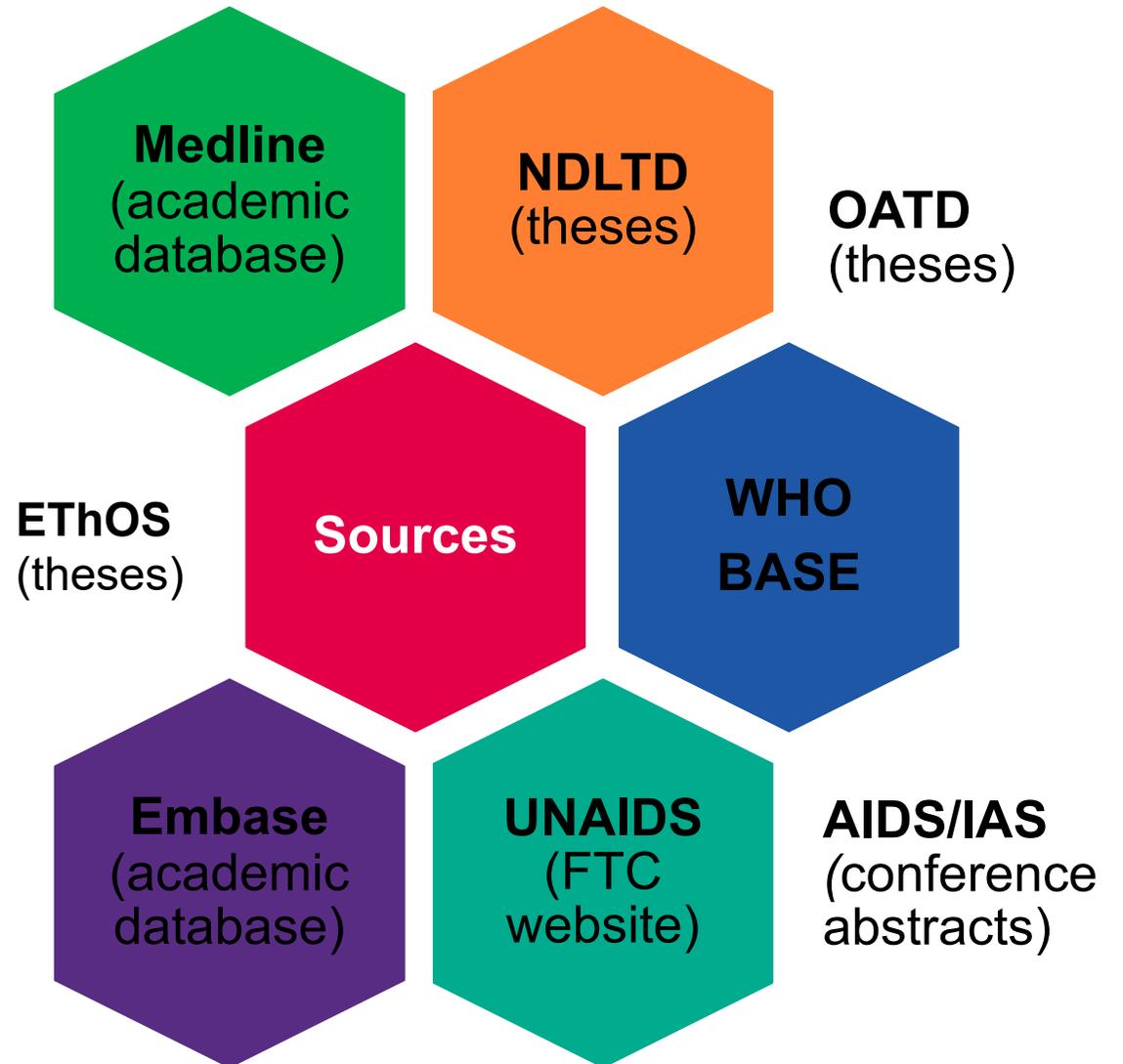
Expert review of definition with wider stakeholder discussion

Piloting of consensus definition against historical London HIV data

Publication

Rapid literature review methods

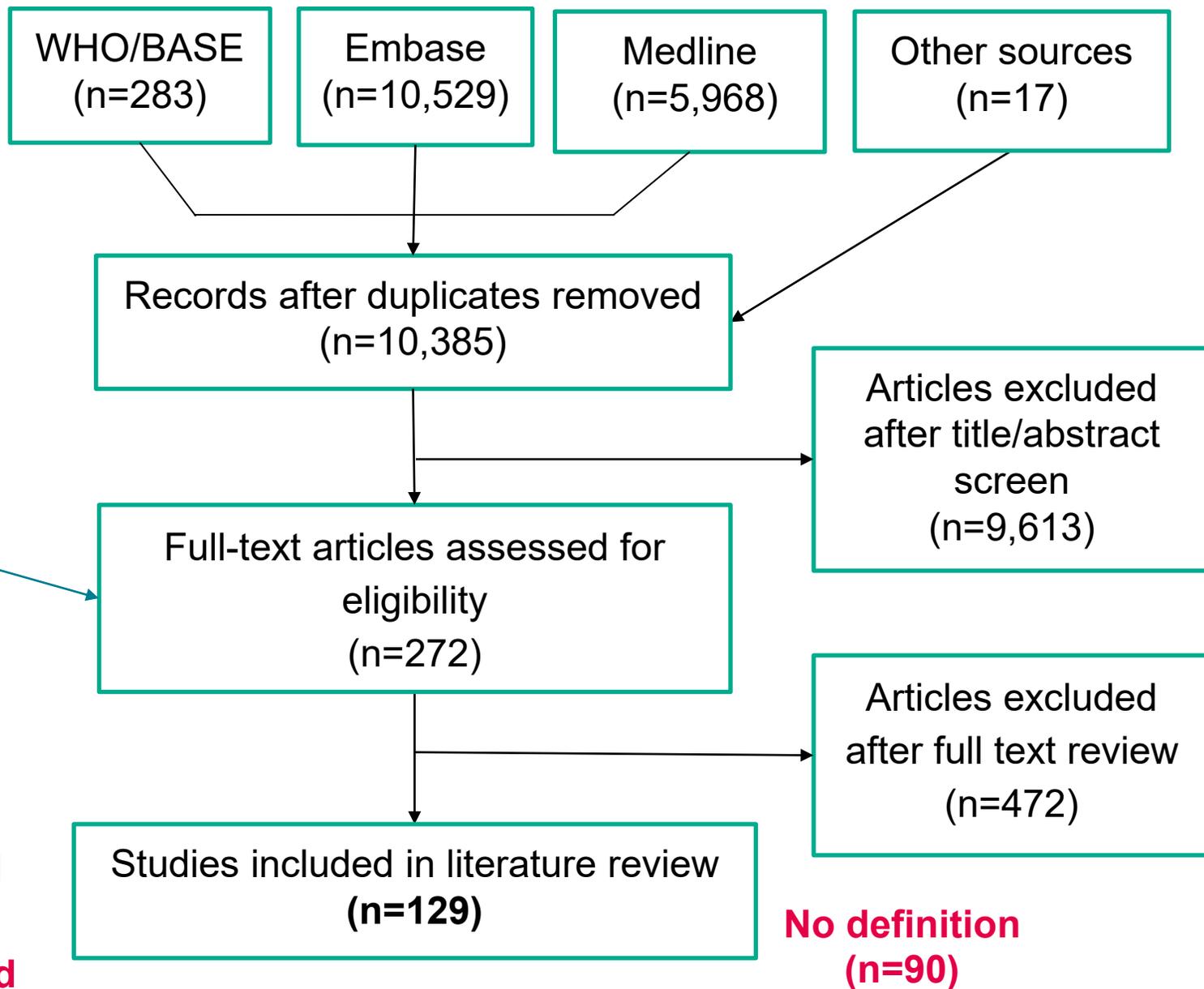
- Systematic approach
- 2010 - March 2021
- Conference abstracts: 2016 - March 2021
- English language
- Measurable definition of mortality
- Studies of children excluded (<15 years old)
- **Search terms:** HIV/AIDS, mortality, preventable, HIV-related, AIDS-related



Rapid literature review findings

Studies describing an **increased incidence** of a given condition or **increased risk of death** from a given condition among people with HIV compared to those without **(n=181)**

**HIV-related
HIV/AIDS
AIDS-related**



Rapid literature review summary

- Most studies used AIDS coding from either the ICD-10 codes or Causes of Death in HIV (CoDe) protocol to indicate “HIV-related” mortality.
- Few studies considered non-AIDS-related causes of HIV-associated mortality.
- No studies classifying suicide or substance misuse as “HIV-related”.
- A subset of studies described “HIV-related” conditions or lifestyle risk factors which they found were more common in people with HIV or from which people with HIV were more likely to die than those without HIV.

Expert review of draft definition

- Small group of experts sent draft definition for comment
- **June 18th 2021:** Findings of the literature review and draft definition presented at wider stakeholder group meeting



42
international
experts



Meeting to agree a consensus definition

General principles:

- Definition based on a 'best-case scenario' of having the necessary available data
- Some countries may need to adapt the definition depending on data collected
- Primary application - national surveillance data

Meeting format:

- Two breakout sessions: HIV-related causes of death and preventable HIV-related death
- Discussion and feedback

Draft recommendations

Recommendation 1:

Deaths among people with HIV should be categorised as:

**HIV-related
(including AIDS)**

**Possibly
HIV-related**

Not HIV-related

**Unknown
cause of
death**

Recommendation 2:

Deaths among people with HIV should, for surveillance purposes, initially be categorised based on information on the death certificate.

- WHO guidance when data systematically inadequate¹
- Where data routinely available, but cause is missing, cause of death should be recorded as unknown.

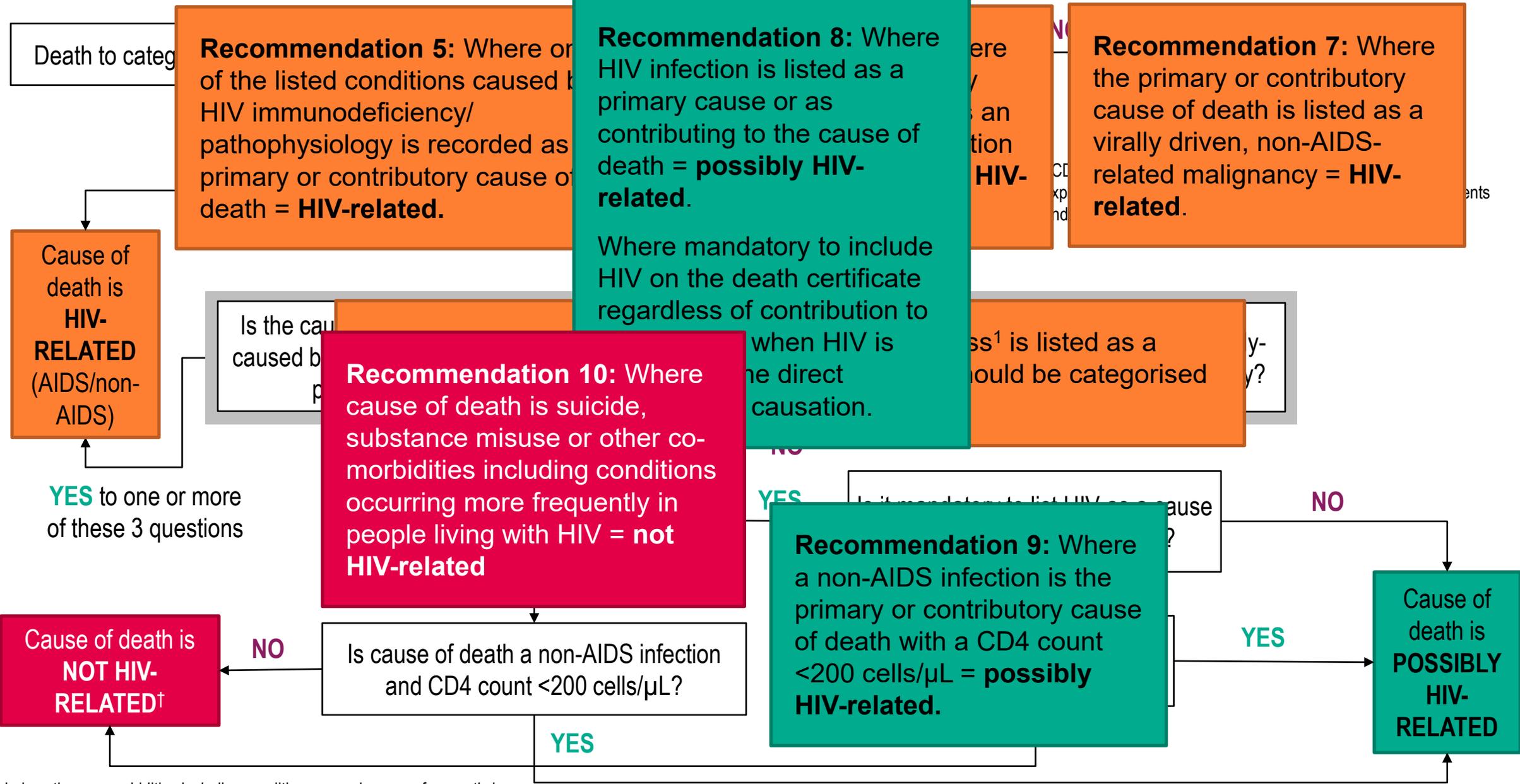
Recommendation 3:

The definition applies to those people who have tested HIV positive.

- Diagnosis may be made post-mortem.
- In high prevalence countries with inadequate data on HIV status of cases, apply WHO tools¹.

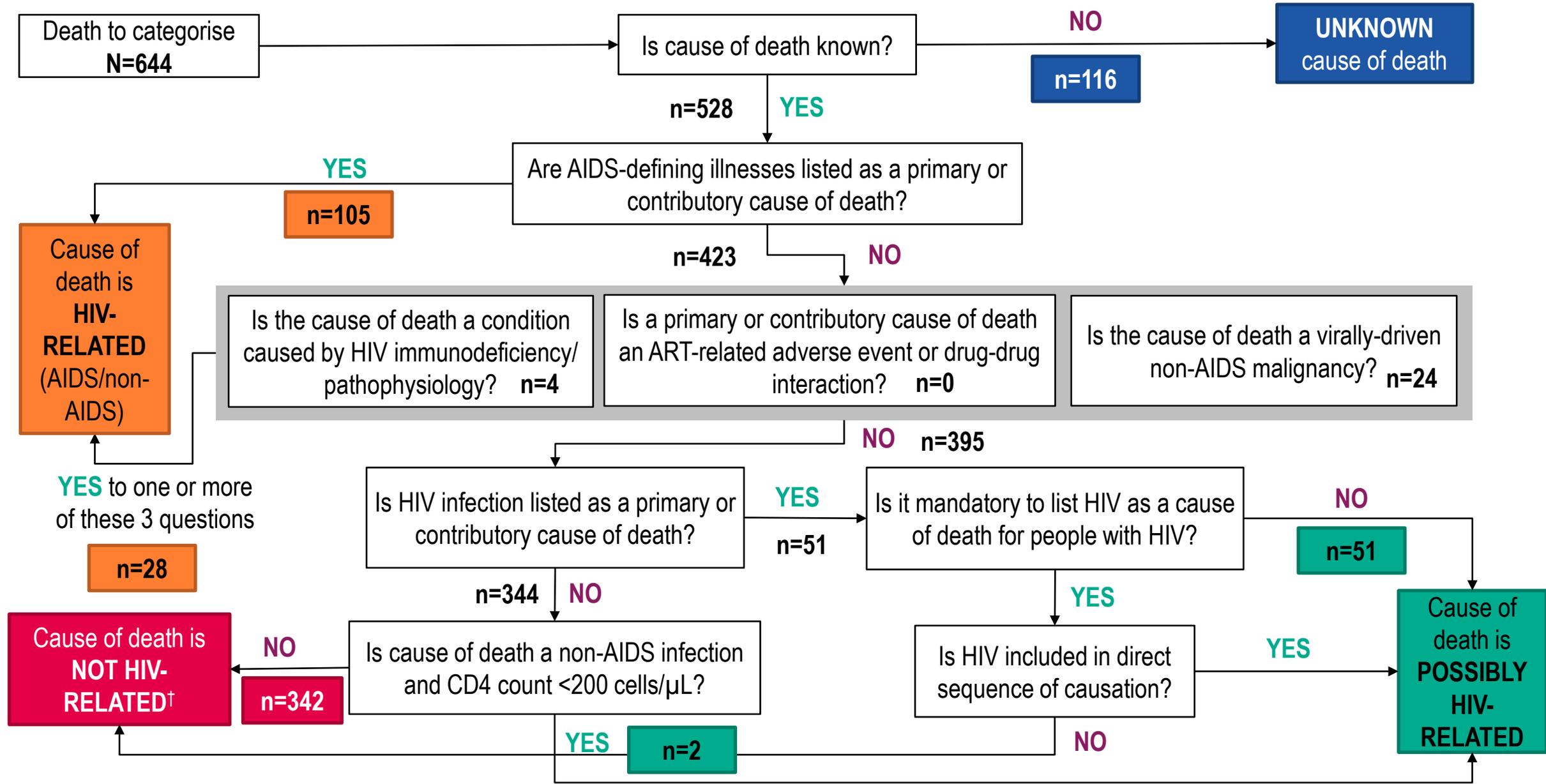
¹World Health Organization. Guidelines for HIV mortality measurement. Geneva: WHO; 2014.

Flowchart 1: Determining whether a death can be considered HIV-related



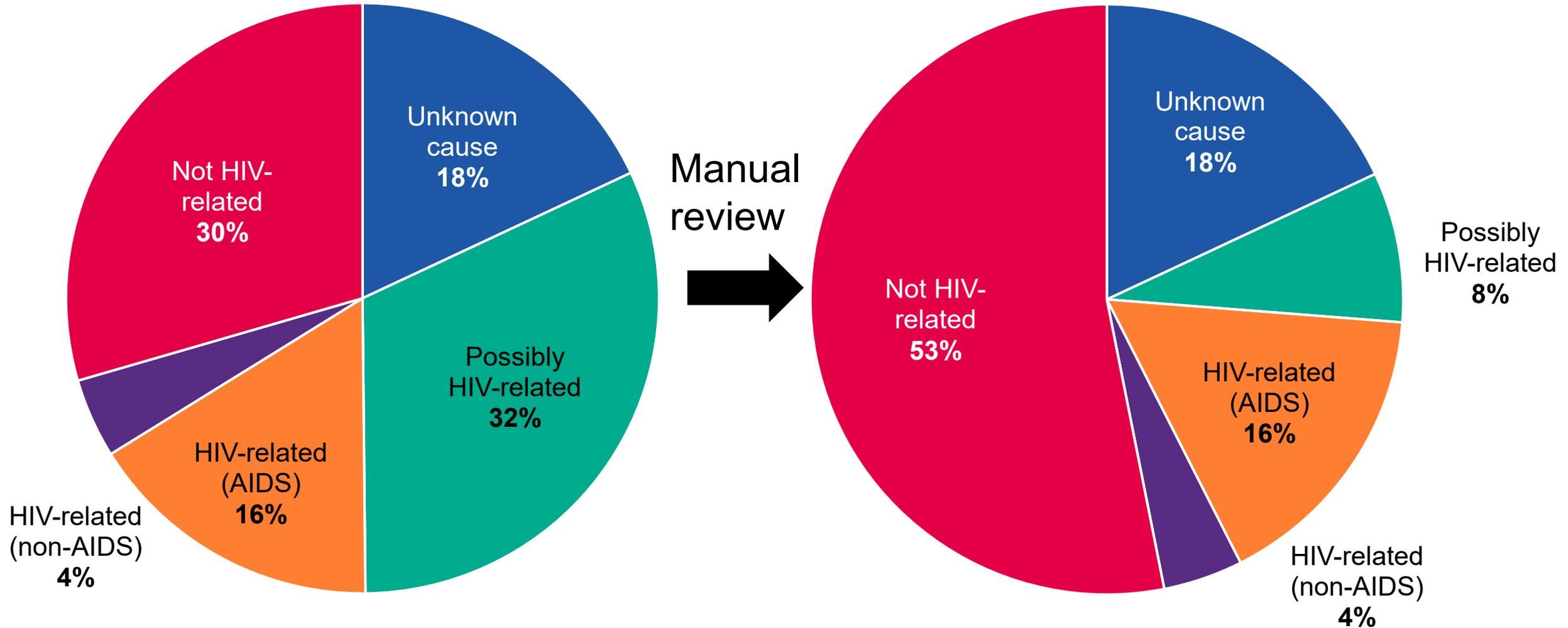
†Includes other co-morbidities including conditions occurring more frequently in people living with HIV, suicide, substance misuse, and mental illness

Flowchart 1: Preliminary UK data from 2019 on HIV-related mortality

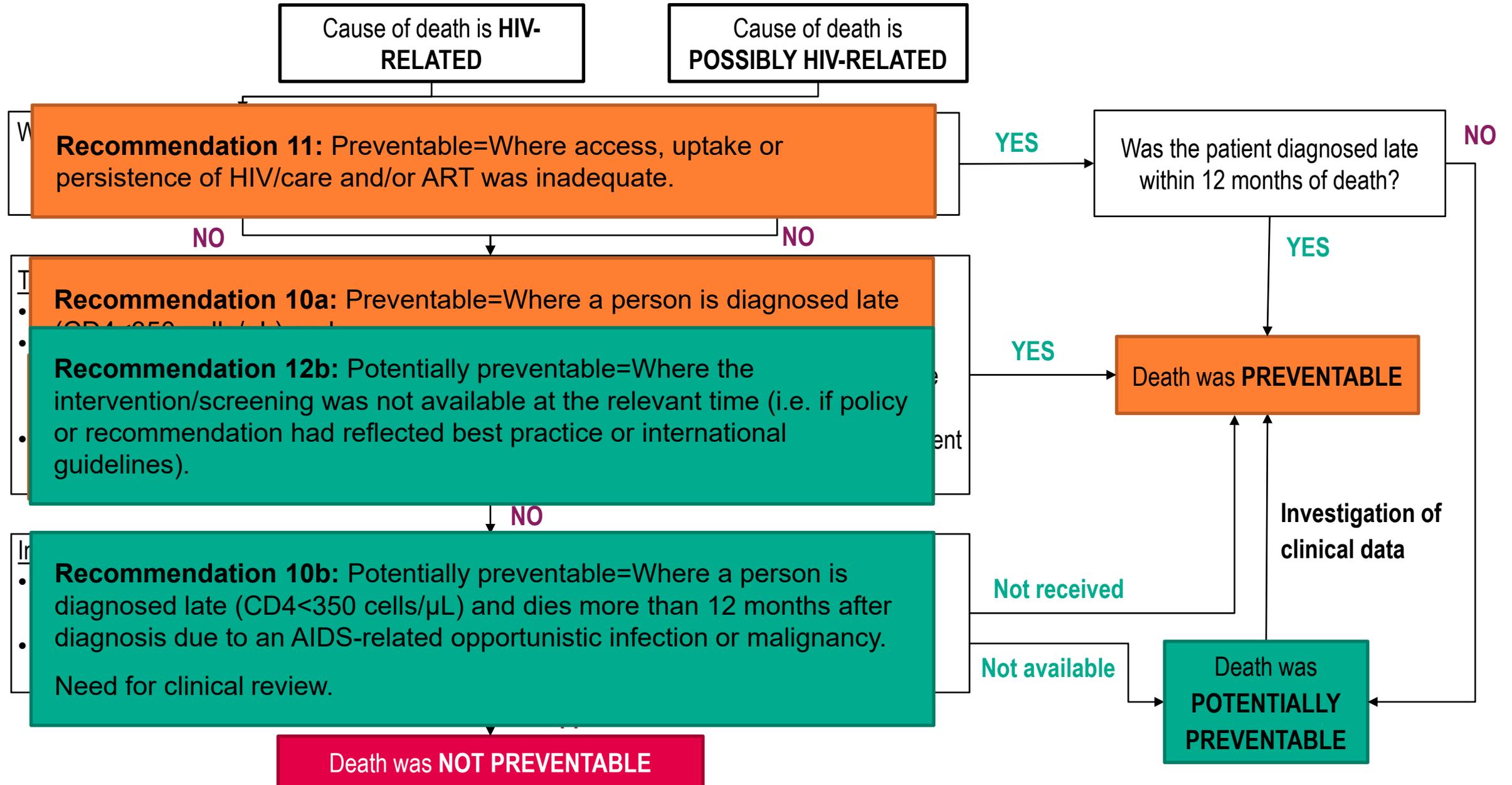


2019 data for UK: HIV-related death

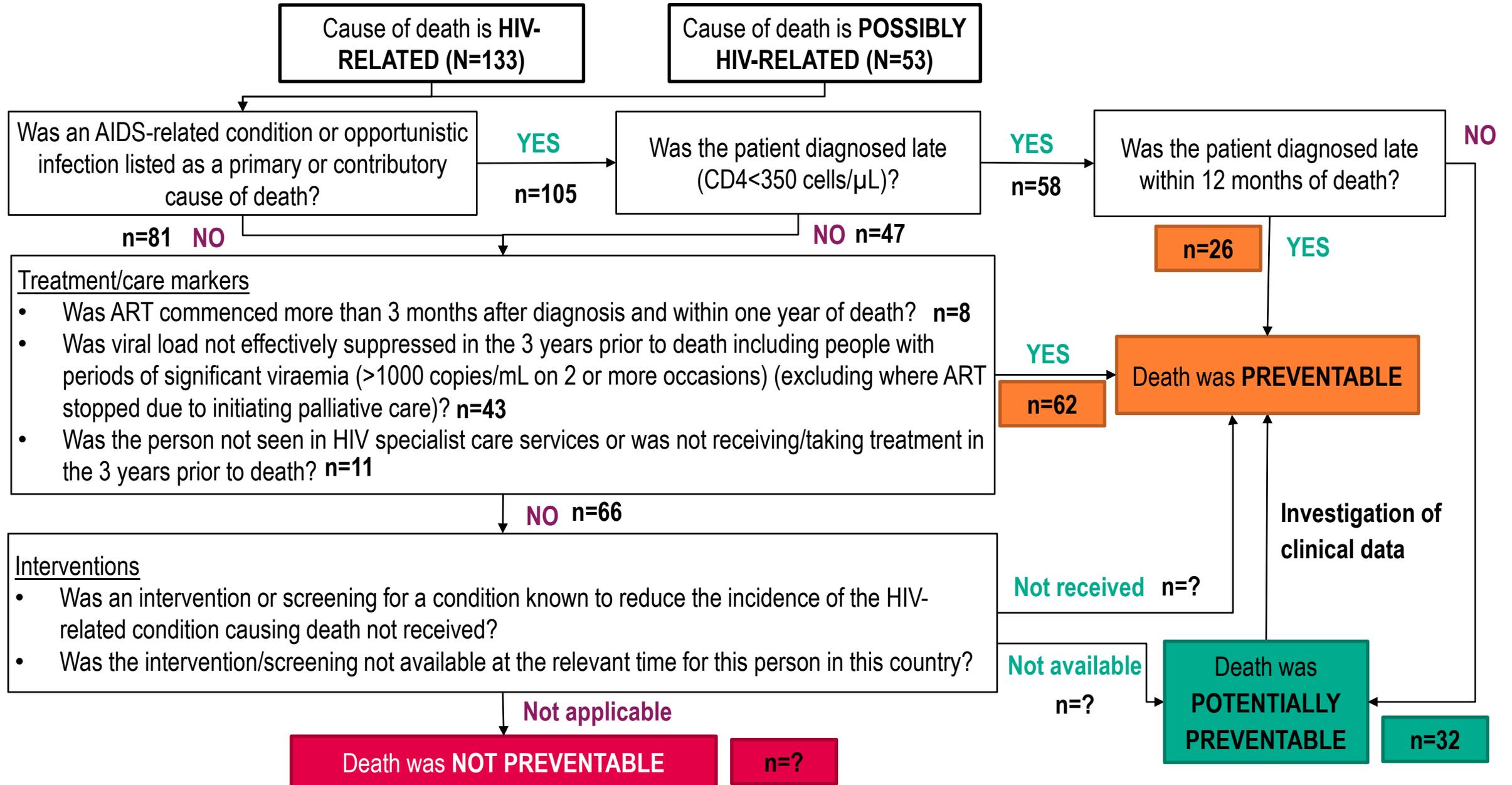
N=644



Flowchart 2: Determining whether an HIV-related death was preventable

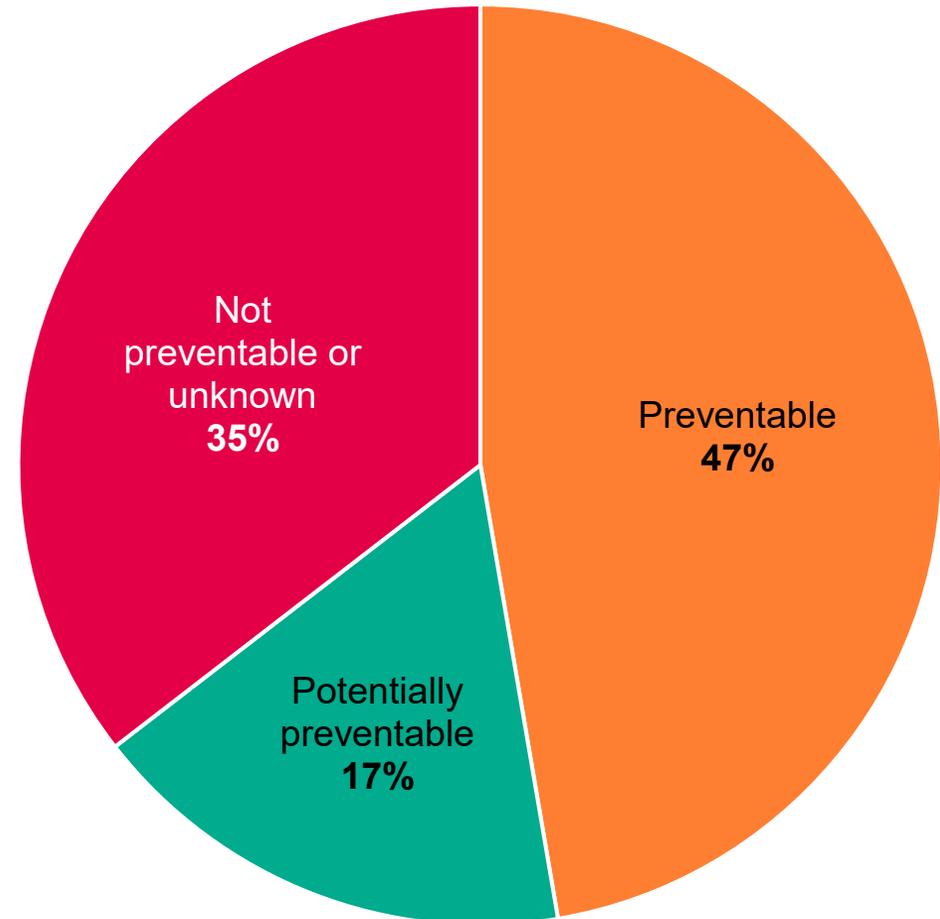


Flowchart 2: Determining whether an HIV-related death was preventable



2019 data for UK: preventable HIV-related death

- **186** deaths among people with HIV either HIV-related or possibly HIV-related
- At least:
 - **88** deaths preventable
 - **32** potentially preventable



Further work

- Circulate draft definition publication to expert stakeholders
- Meet with FTC reps from cities across UK to promote definition
- Improve collection of data on the uptake of interventions and screening perhaps through the UK National HIV Mortality Review.
- Role of HIV Guidelines and Standards, and engagement in treatment and care services, on preventable non-HIV causes of and contributors to death
- Death certificate standardisation

Acknowledgements

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Experts:

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Helen Corkin	Sarah North		

Project team at FTci: Jess Drummond, Eleanor Johnston

Project team at UKHSA: Ann Sullivan, Sara Croxford, Veronique Martin, Valerie Delpech, Nicky Connor, Adamma Aghaizu, Amber Newbigging-Lister

Conditions caused by HIV immunodeficiency / pathophysiology

Viruses

Adenovirus
Herpes zoster
J-C virus

Fungi

Blastomyces dermatitidis
Coccidioides immitis
Cryptococcus neoformans
Dermatophyte spp.
Histoplasma capsulatum
Histoplasma duboisii
Paracoccidioides brasiliensis
Penicillium marneffeii
Sporotrichum schenckii
Trichosporonosis

Parasites

Acanthamoeba spp
Balamuthia spp.
Entamoeba dispar
Falciparum malaria in pregnant women
Isospora belli
Leishmania spp.
Microsporidia
Schistosoma spp.
Strongyloides stercoralis
Trypanosoma cruzi

Bacteria

Bartonella spp
Chlamydia trachomatis (LGV)
Shigella enteritis

Listeria

Mycoplasma spp.
Mycobacterium leprae
Mycobacterium avium-intracellulare
Other non-TB mycobacteria, except *M. ulcerans*
BCG infection
Neisseria gonorrhoea (disseminated)
Nocardia spp.
Non-typhoid *Salmonella* spp. Sepsis
Pneumococcal infections
Rhodococcus equi
Staphylococcus aureus and *E. coli* sepsis
Syphilis

Direct HIV-induced conditions

Cerebral vasculitis

Vacuolar myelopathy of spinal cord
Inflammatory demyelinating polyneuropathy
HIV-associated myopathy
HIV-associated dementia
HIV-associated nephropathy (HIVAN)
HIV enteritis
Lymphoid interstitial pneumonia (LIP)

Other conditions

Exocrine pancreatic insufficiency
Coagulopathy and venous thromboembolism (VTE)
Idiopathic thrombocytopenia (ITP)
Thrombotic thrombocytopenic purpura (TTP)
Diffuse infiltrative lymphocytosis syndrome (DILS)
Haemophagocytic lymphohistiocytosis (HLH) or
macrophage activation syndrome

Virally driven malignancies

Human herpes virus-8 (HHV-8)

Castleman's Disease
Primary effusion lymphoma

Human papillomavirus (HPV)

Anal cancer
Penile cancer
Vulval cancer
Vaginal cancer
Oropharyngeal cancer (HPV must be mentioned)

Hepatitis B & C viruses (HBV & HCV)

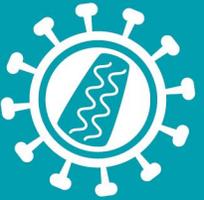
Hepatocellular carcinoma

Epstein Barr virus (EBV)

Hodgkin's Disease
Nasopharyngeal carcinoma
Laryngeal cancer
Gastric cancer

Human T-lymphotropic virus (HTLV)

Adult T cell leukaemia/lymphoma

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