

# **Clinical Outcomes**

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# Background

- **Core aim of London HIV Strategy (2005)**
  - Maintain and develop best practice in HIV treatment and care services
- **HIV audit and outcomes subgroup (AOSG)**
  - Develop and implement population health clinical outcomes across London HIV clinical sites

# Project aims

## To develop routine patient level measures to

- Monitor clinical stage (CD4 cell count)
- Assess the effectiveness of HIV treatment (viral load)
- Promote high quality services

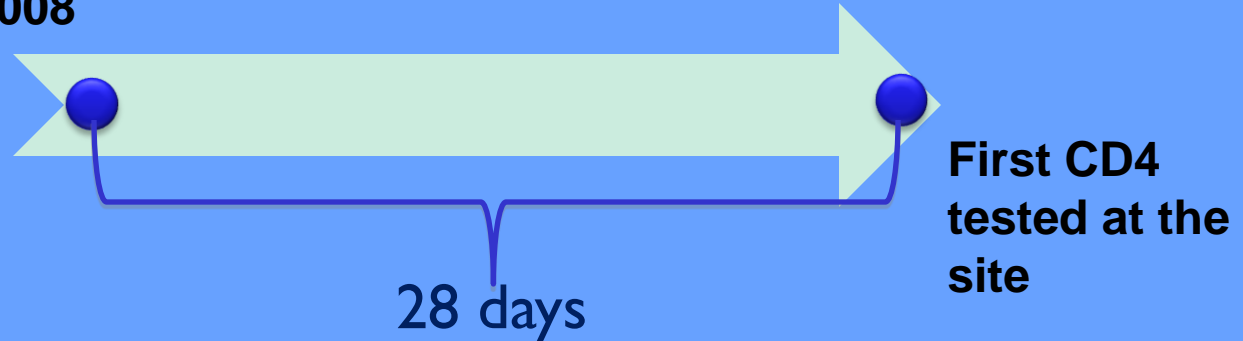
# Clinical outcomes

**Four outcomes have been developed to monitor key aspects of treatment and care:**

- **Outcome 1** - time between HIV diagnosis & the patient being integrated in to HIV care
- **Outcome 2** - effectiveness of HIV therapy after one year treatment
- **Outcome 3** - disease stage of patients after one year in HIV related care
- **Outcome 4** - survival of patients recently diagnosed, adjusted by disease stage at diagnosis

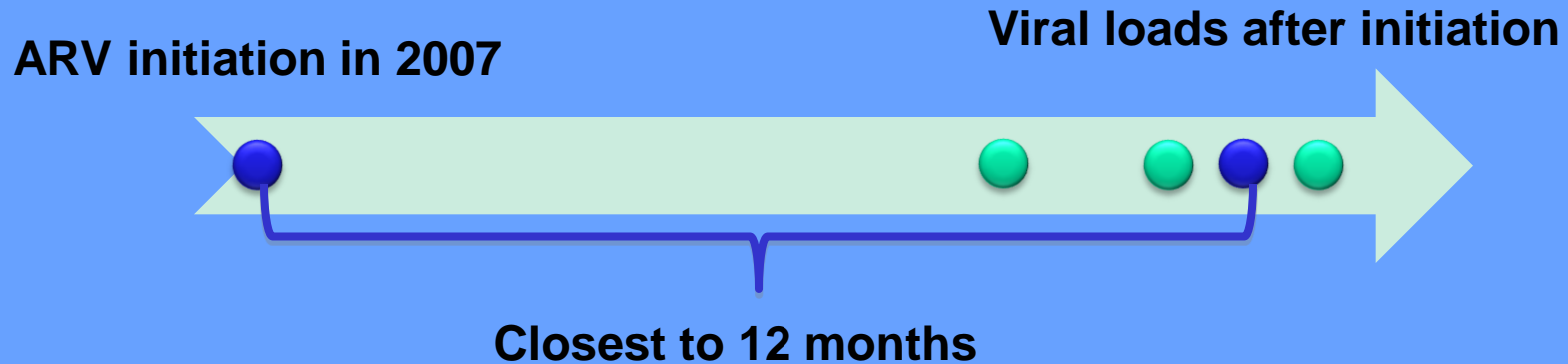
# Outcome I: length of time from HIV diagnosis date to first CD4 count

New HIV diagnosis at the site in 2008



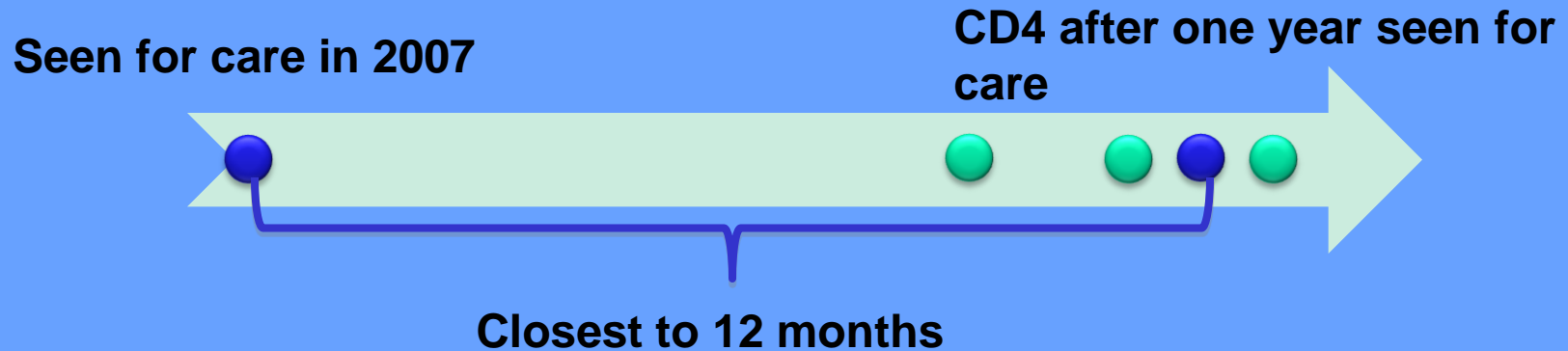
- **Standard:** 100% within 28 days
- **Population:** All newly-diagnosed adults with CD4 cell count available
- **Data sources:** Linking with SOPHID, New HIV Diagnoses and CD4 Surveillance

# Outcome 2: viral load after one year HIV treatment



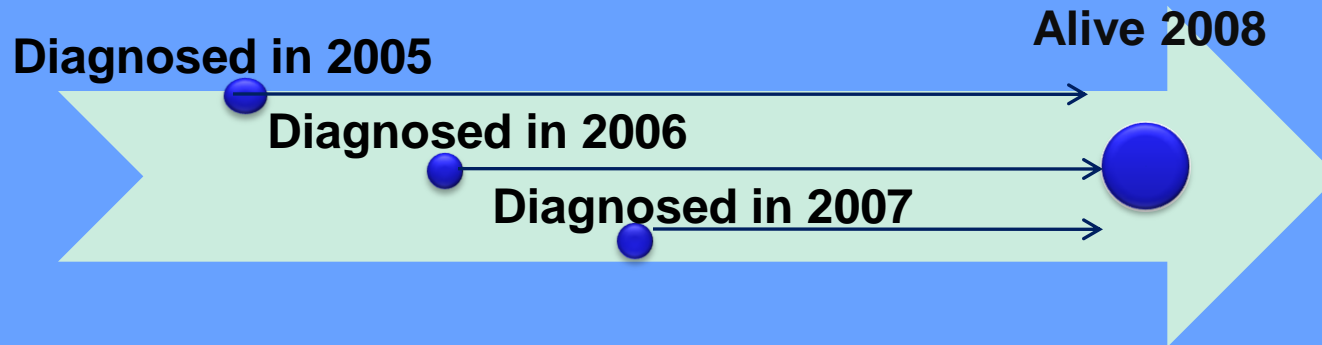
- **Standard:** 85% patients had VL<50 copies after one year treatment
- **Population:** Patients seen at the same site one year after starting treatment. Excludes those who discontinued ARV and pregnant women
- **Data source:** SOPHID returns

# Outcome 3: CD4 cell count after one year of HIV care at the same site



- **Standard:** 90% patients to have CD4  $\geq 200$  cells after 1 year at a site
- **Population:** All patients seen for HIV care for at least one year at the same site
- **Data sources:** Linking with SOPHID and CD4 Surveillance

# Outcome 4: Proportion of patients still alive by 1, 2, 3 years from HIV diagnosis



- **Standard:** N/A
- **Population:** All patients newly-diagnosed in London. Reported by sector, not site.
- **Data sources:** Linking with SOPHID, CD4 Surveillance and ONS.

# Preliminary London results: 2008

- **Outcome one:** at least 80% of London patients had a CD4 count within 28 days of diagnosis
- **Outcome two:** 85% of patients starting ART in 2007 had an undetectable viral load in 2008
- **Outcome three:** 94% of patients receiving care for at least one year had a CD4 count  $\geq 200$  cells in 2008
- **Outcome four:** Between 2005-8, 4.3% of patients diagnosed with a CD4 count  $< 200$  cells died within one year of diagnosis

London sites have been sent preliminary data, and data quality exercise is underway to improve completion of clinical outcomes

# Discussion

- Some sites have small numbers
- Bias towards patients with “good attendance” (excludes lost to follow up)
- Clinical complexity of patient will affect response to treatment (e.g. coinfections)
- Case mix seen at site will impact on outcomes
- Other issues may affect outcomes, e.g. VL blips, prison patients, pregnant patients
- Data limitations (e.g. linkage between surveillance systems, underreporting, data quality)

# Conclusions

- Four clinical outcomes have been developed to monitor patient-level clinical services
- Diagnosed HIV patients treated in London receive a high level of clinical care but not all sites meet all standards
- Current work is underway with sites to improve data quality and linkage between data systems
- Outcomes will need to be flexible to reflect future changes in treatment/care guidelines

# Acknowledgements

- Dr Zheng Yin & Dr Valerie Delpach
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- Clinical and information staff at the London sites
- Laboratories reporting to the CD4 surveillance scheme