

BHIVA AUTUMN CONFERENCE 2014

Including CHIVA Parallel Sessions



Dr Paddy Mallon

Mater Misericordiae University Hospital, Dublin, Ireland

9-10 October 2014, Queen Elizabeth II Conference Centre, London

Dr Paddy Mallon

Mater Misericordiae University Hospital, Dublin, Ireland

COMPETING INTEREST OF FINANCIAL VALUE \geq £1,000:	
Speaker Name	Statement
Dr Paddy Mallon	Dr Mallon and/or his employer has received financial support in the form of honoraria for consultancy services (including advisory boards), speaker services, funding to attend conferences and / or research income from the following companies; Gilead Sciences, ViiV Healthcare, GSK (Ireland), Janssen---Cilag, Merck, Sharpe and Dohme and Bristol Myers Squibb.
Date	October 2014



Life Expectancy

'living long and well with HIV'

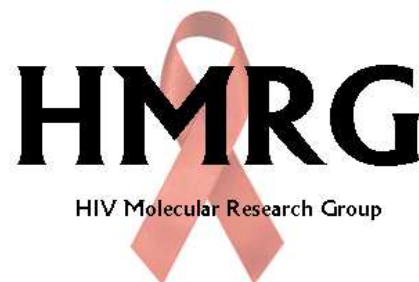
Dr Paddy Mallon

UCD HIV Molecular Research Group
Associate Dean for Research and Innovation
UCD School of Medicine and Medical Science

paddy.mallon@ucd.ie



UCD School of Medicine
& Medical Science

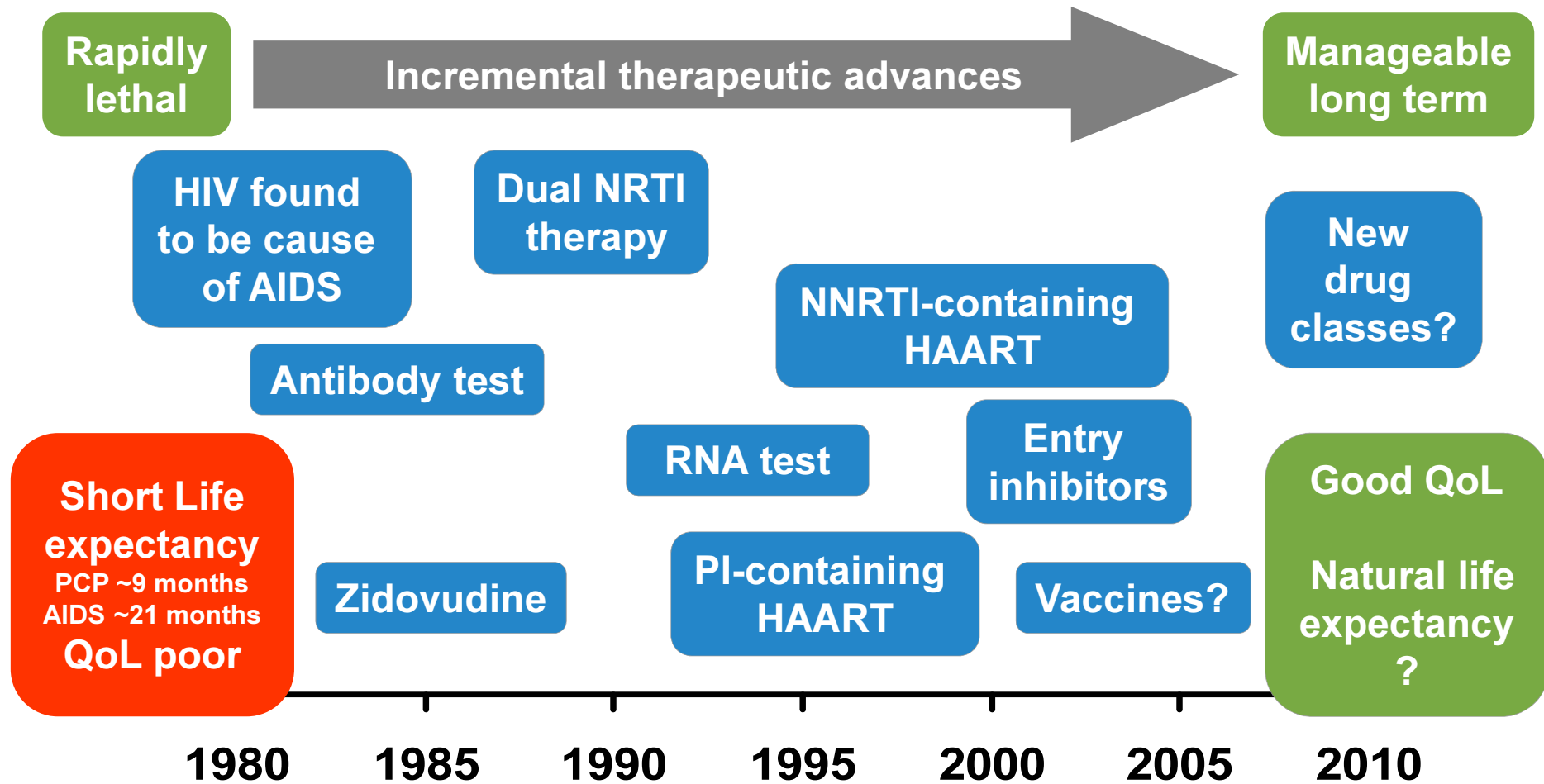


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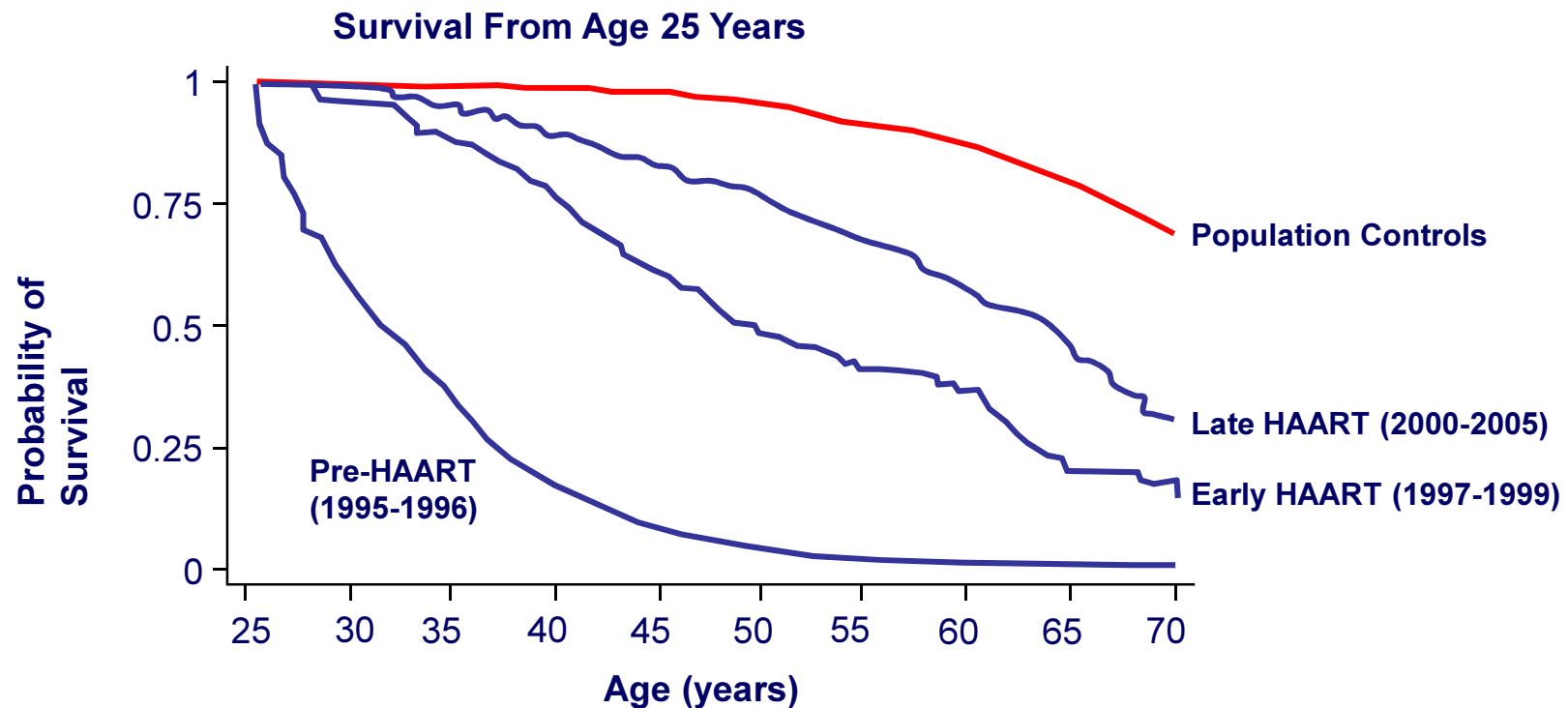
Evolution of treatment for HIV infection

From mortality to long-term manageability



Survival trends in HIV with effective ART

Cumulative survival curve for HIV-infected persons (non-HCV co-infected) and persons from the general population.



n=383,862 (HIV-infected patients, n=3,990;
General population controls, n=379,872)



Adapted from Lohse N, et al. Ann Int Med. 2007;146:87-95.

Survival living with HIV on HAART - 2012

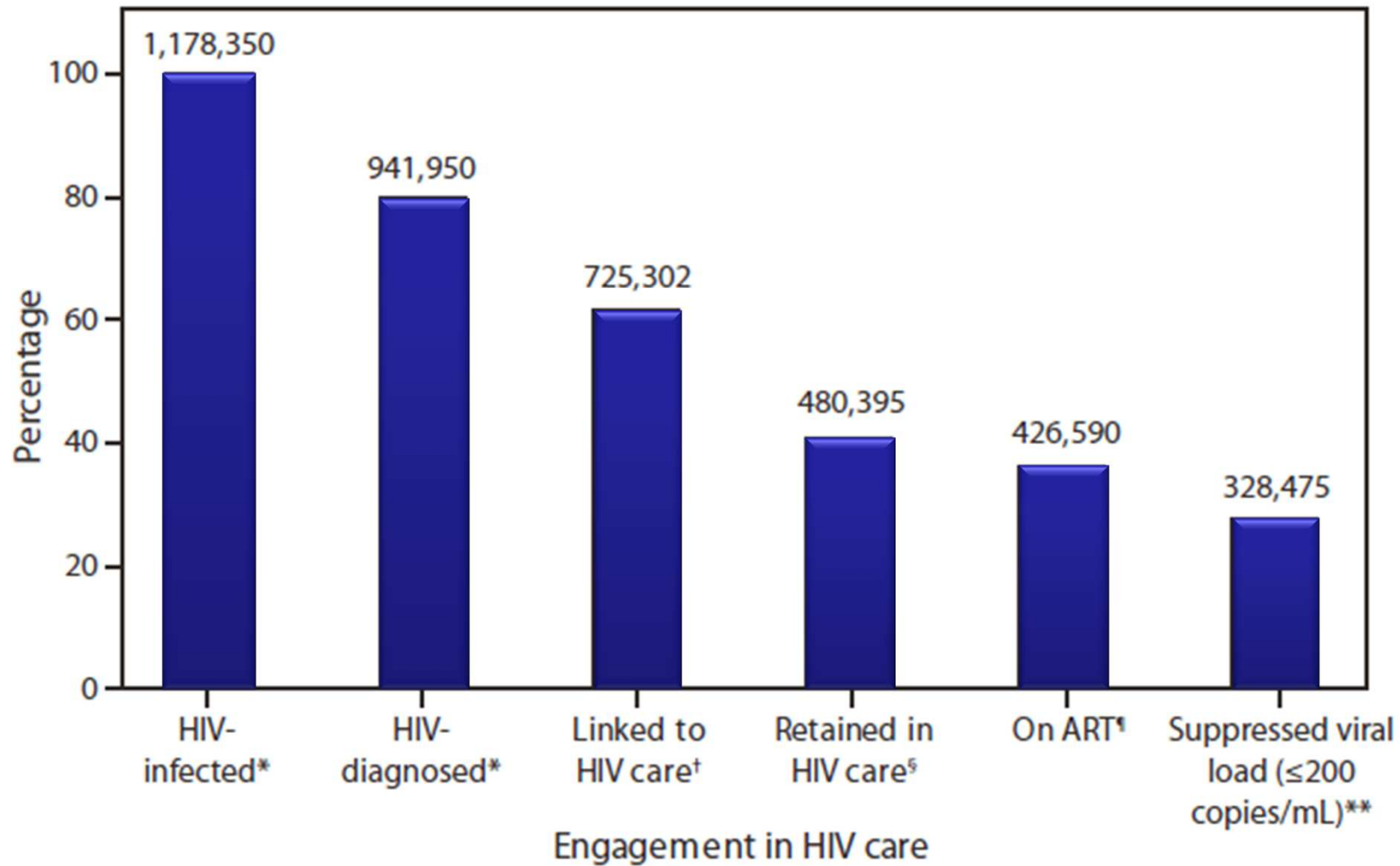
- $N=3280$ on continuous ART from SMART and ESPRIT trials
- 80% male, 61% MSM (no IDU), 43 years
- CD4 >350 and suppressed HIV RNA
- 62 deaths - mortality rate 5.02/1000 PY (95% CI 3.85, 6.43)
- Standardised mortality ratios (SMR) compared to the Human Mortality Database

CD4 (cells/mm ³)	350-500	>500
SMR (95% CI)	1.77 (1.17, 2.55)	1.00 (0.69, 1.4)

Barriers to achieving CD4+ > 500 cells/mm³

- Later diagnosis
 - Increase HIV testing and detection
- Lower CD4+ count at ART initiation
 - When to start?
- Older age
- Male gender
 - Do we need more personalised treatment guidelines?

HIV – ‘test and treat.....and link into care!’




U.S. Centers for Disease Control and Prevention (CDC). Vital Signs: HIV prevention through care and treatment -- United States. Morb Mortal Wkly Rep. 2011 Dec 2; 60:1618

HIV - 'test and treat' - new global direction



90-90-90
An ambitious treatment target
to help end the AIDS epidemic



Diagnosed



On
treatment

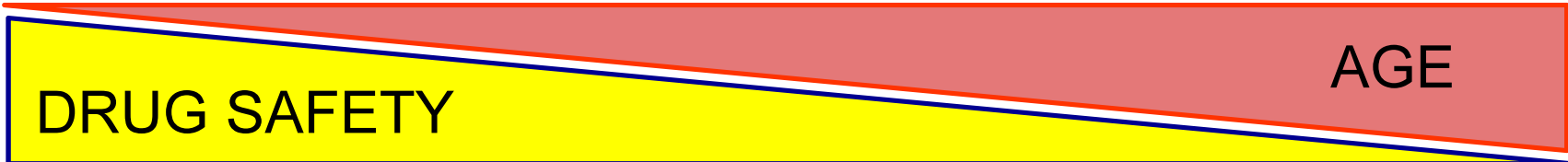
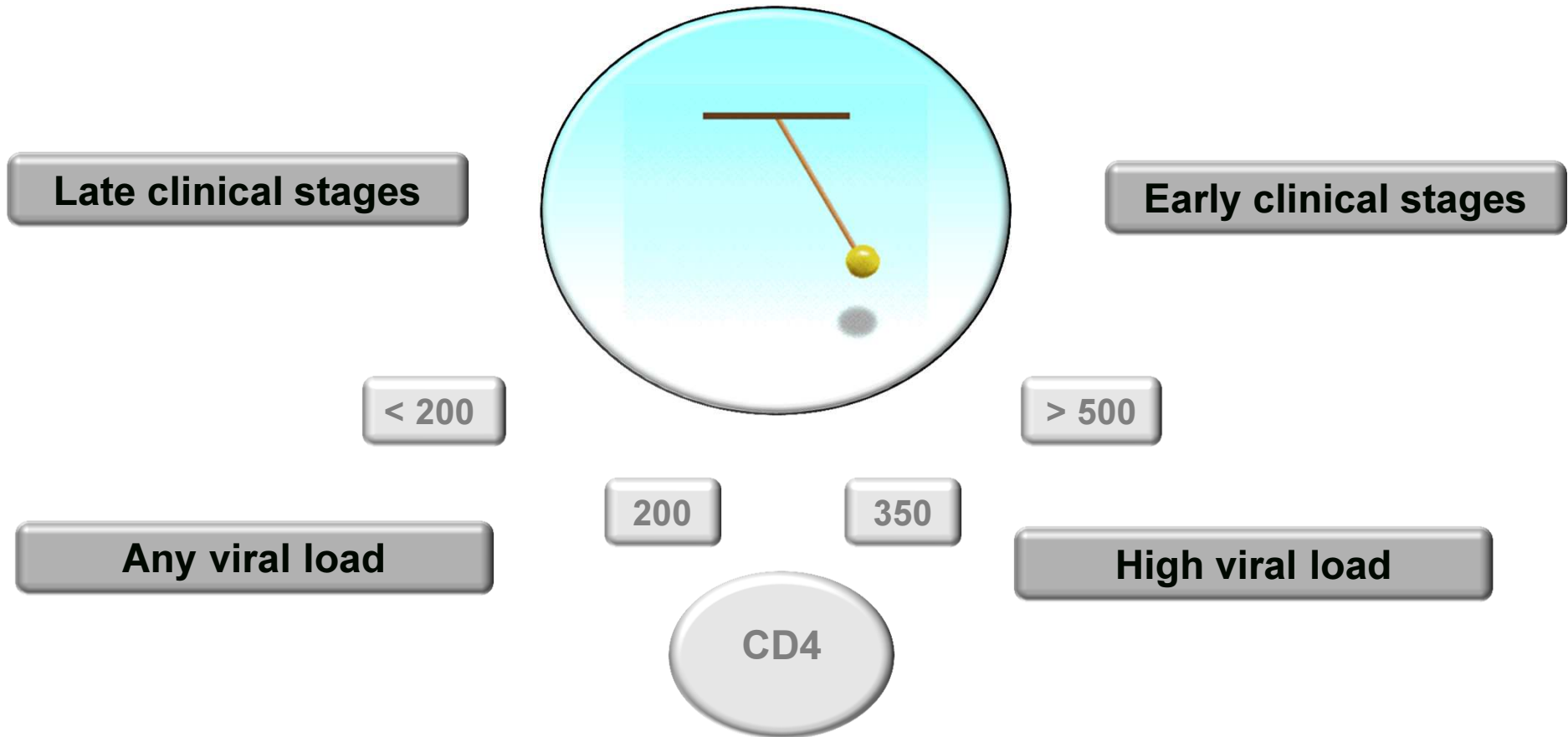


Virally
suppressed



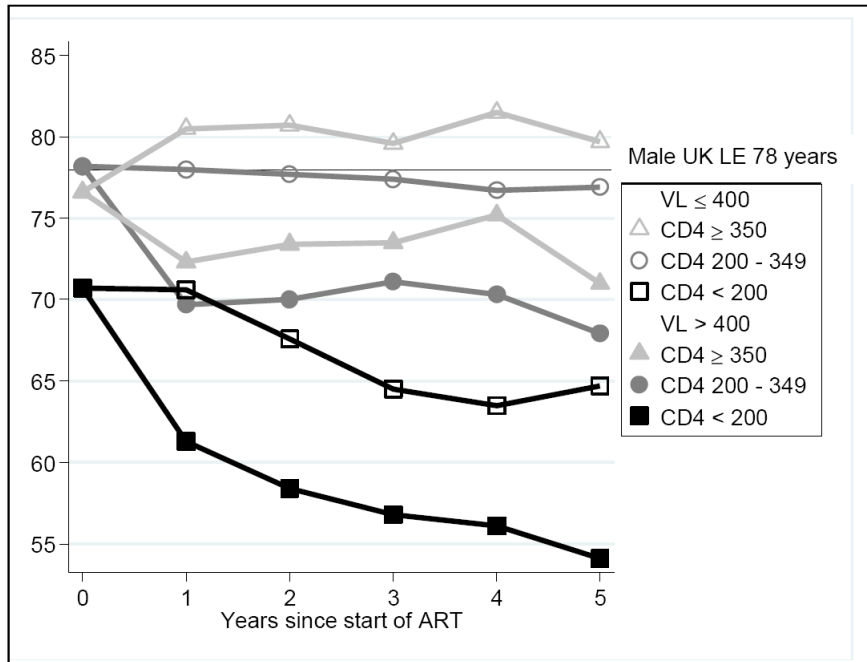
http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2014/90-90-90_en.pdf

When to Start HIV Treatment

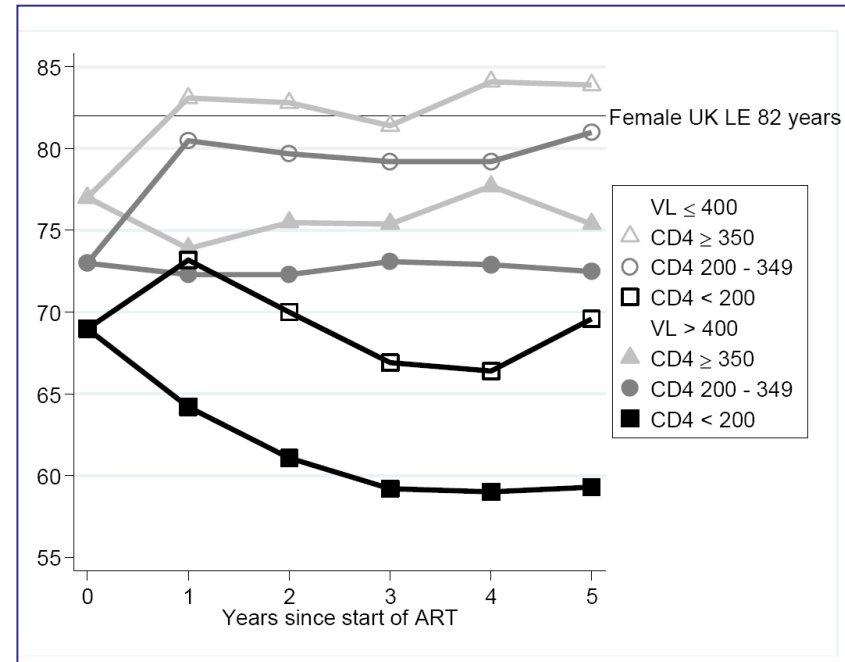


Survival predictions in HIV – effect of ART

Expected age at death* - men



Expected age at death* - women



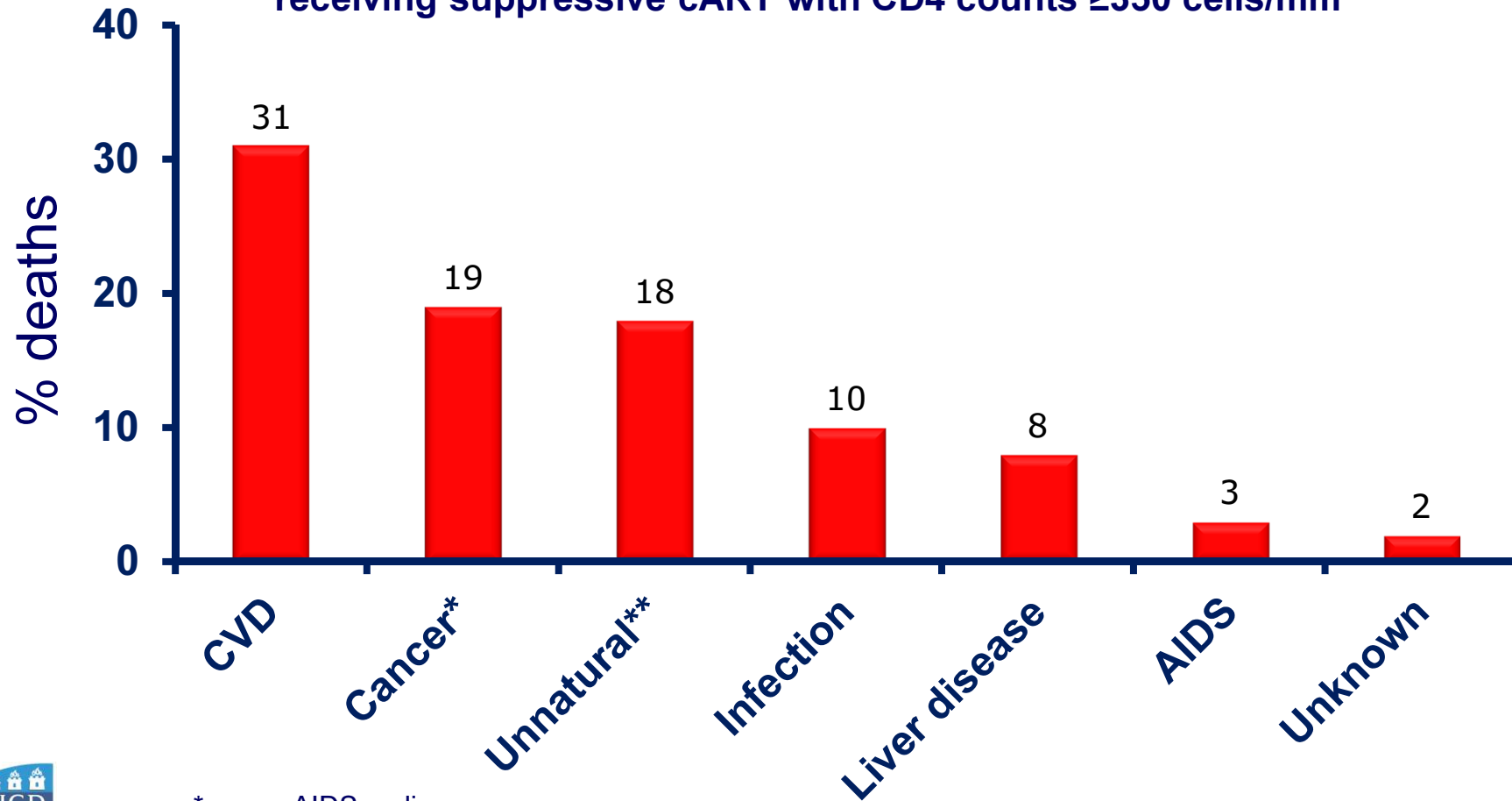
* Expected age at death for a person aged 35 years with different durations of antiretroviral therapy according to current CD4 count and viral load suppression



Mortality in treated HIV

Causes of death in a successfully ART-treated population:

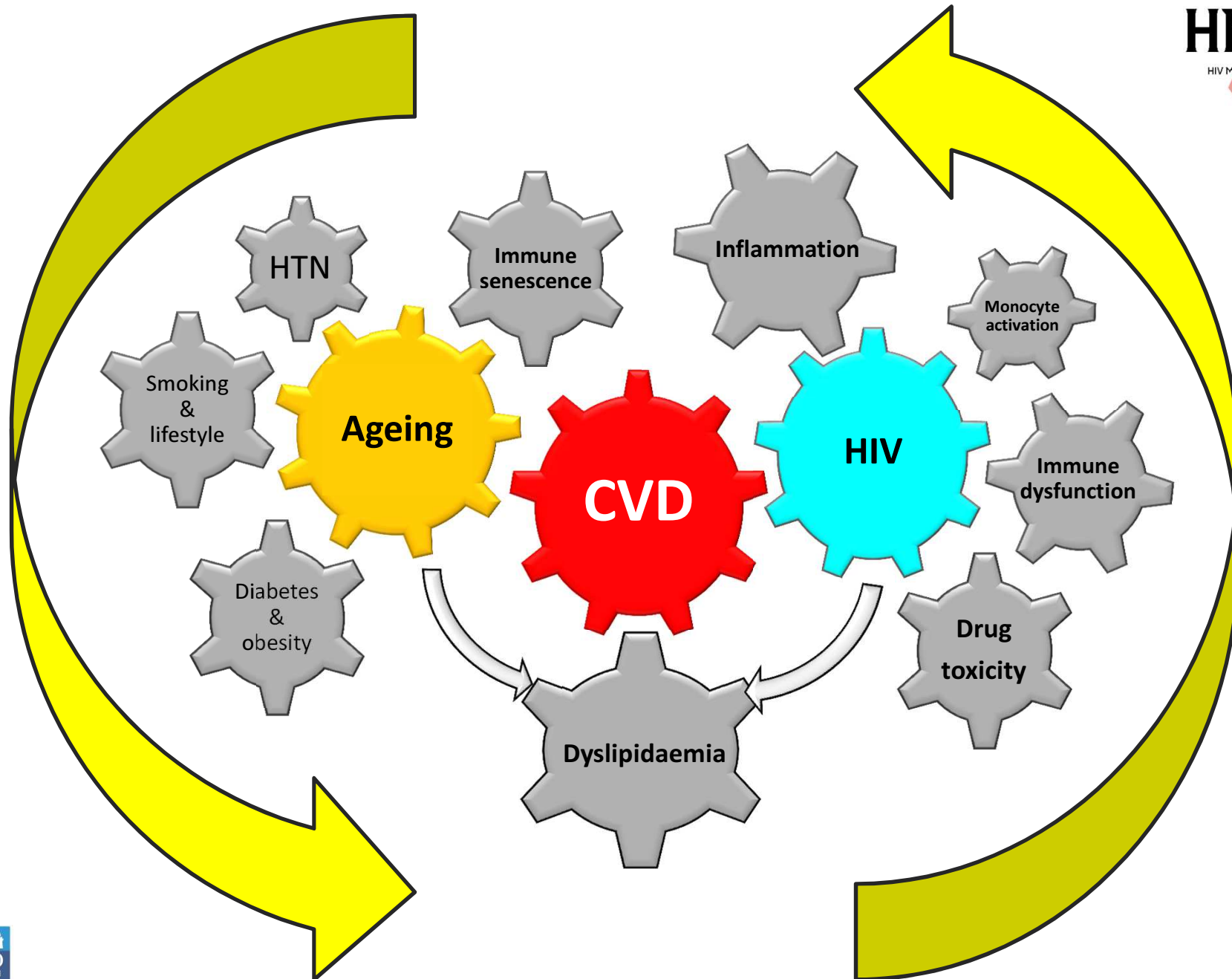
SMART/ESPRIT: causes of death in N=3,280 HIV-infected persons receiving suppressive cART with CD4 counts ≥ 350 cells/mm³



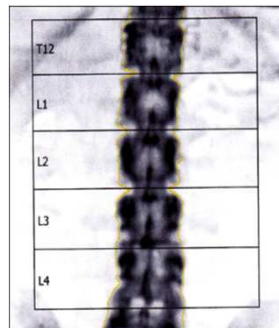
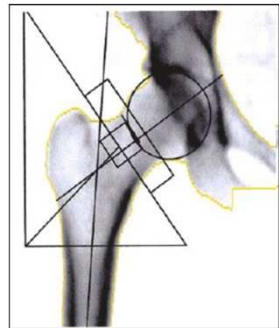
* = non-AIDS malignancy

** = accident, suicide or violent death



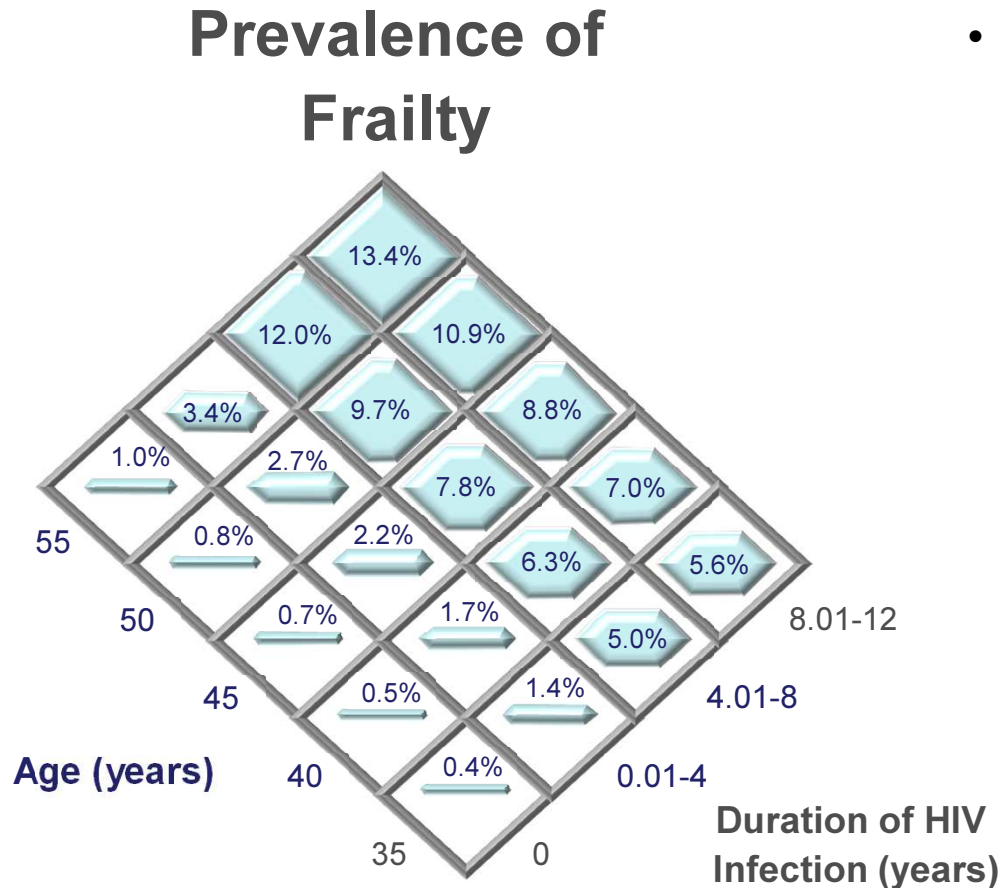


Bone health and HIV



	N	HIV+	% male	Fractures	Association between fracture and HIV
USA ¹	119,318	33%	100	1615	HR 1.24 (1.11, 1.39)
Denmark ²	31,836	5,306	76	806	IRR 1.5 (1.4-1.7)
Canada ³	540	138	0	-	OR 1.7 (1.1, 2.6)
USA ⁴	559	328	100	33	No difference in fracture rates
Spain ⁵	1,118,156	2,489	-	24,457 (HIV+ 49)	HR 4.7 (2.44, 9.5) hip

HIV+ patients and frailty

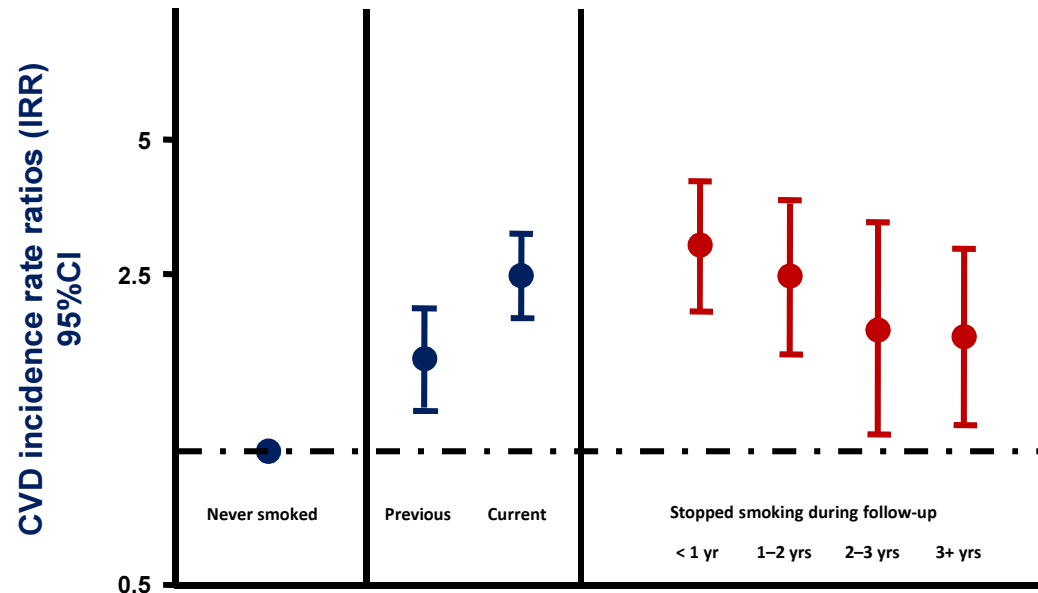


Frailty-related phenotype defined as at least 3 of: physical shrinking, exhaustion, slowness, low physical activity level

- MACS cohort study
 - HIV infected (n = 245)
 - HIV negative (n = 1,905)
 - Compared to HIV- of similar age, ethnicity and education, HIV+ more likely to have frailty phenotype
 - Frailty prevalence increases with longer duration of infection
 - Risk 3–14 fold > in men infected with HIV for 4 to 12 years
 - Frailty prevalence for 55-year-old men infected with HIV for >4 years similar to that of uninfected men >65 years old (3.4%)

Reducing risk of MI – what works?

D:A:D - risk of CVD events decreases by nearly 30% after stopping smoking for > 3 years

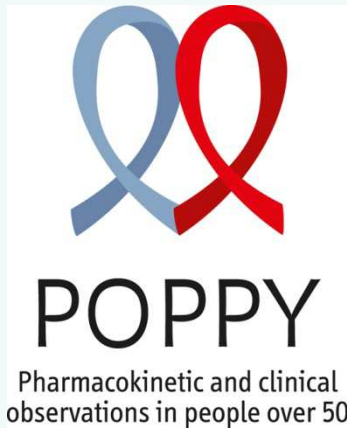


- 746 CVD events reported during 151,717 person years of follow up, yielding overall crude rates (and 95% CI) per 1,000 person years of 4.92 (4.57, 5.28)
- Compared to current smokers, the risk of CVD among patients who stopped smoking for more than 3 years was **reduced by approximately 30% (IRR (95% CI): 0.74 (0.48, 1.15))**



Future research in HIV and ageing

***'Pharmacokinetic
and Clinical
Observations in
People over Fifty'***



UK and Ireland



The Netherlands