| **Author, Year** | **Comparison groups** | **Adjusted variables for statistical analysis** | **Clinical outcomes** |
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| Edwards, 201588 | A. Initiation of ART at <500 cells/mm3B. Initiation of ART at <350 cells/mm3C. Initiation of ART at <200 cells/mm3 | Sex, race/ethnicity, injection drug use, MSM status, age, year, CD4 cell count, viral load, AIDS status | All-cause mortality, 5-year risk:B vs. A: RR, 1.15 (95% CI, 1.05 to 1.26); RD, 0.67 (95% CI, 0.23 to 1.11)C vs. A: RR, 1.33 (95% CI, 1.15 to 1.54); RD, 1.54 (95% CI, 0.72 to 2.36)Ages 18 to 34 yearsB vs. A: RR, 1.05 (95% CI, 0.87 to 1.27); RD, 0.11 (95% CI, -0.33 to 0.55)C vs. A: RR, 1.16 (95% CI, 0.84 to 1.60); RD, 0.34 (95% CI, -0.40 to 1.08)Ages 35 to 44 yearsB vs. A: RR, 1.08 (95% CI, 0.95 to 1.22); RD, 0.42 (95% CI, -0.23 to 1.07)C vs. A: RR, 1.13 (95% CI, 0.91 to 1.41); RD, 0.67 (95% CI, -0.59 to 1.93)Ages 45 to 65 yearsB vs. A: RR, 1.23 (95% CI, 1.08 to 1.40); RD, 2.11 (95% CI, 0.80 to 3.42)C vs. A: RR, 1.58 (95% CI, 1.31 to 1.90); RD, 5.33 (95% CI, 3.15 to 7.51)All-cause mortality, 10-year risk:B vs. A: RR, 1.08 (95% CI, 1.00 to 1.16); RD, 0.87 (95% CI, 0.07 to 1.67)C vs. A: RR, 1.25 (95% CI, 1.08 to 1.44); RD, 2.71 (95% CI, 0.92 to 4.50)Ages 18 to 34 yearsB vs. A: RR, 1.00 (95% CI, 0.87 to 1.15); RD, -0.03 (95% CI, -0.83 to 0.77)C vs. A: RR, 1.02 (95% CI, 0.78 to 1.33); RD, 0.14 (95% CI, -1.48 to 1.76)Ages 35 to 44 yearsB vs. A: RR, 1.09 (95% CI, 0.99 to 1.20); RD, 0.99 (95% CI, -0.13 to 2.11)C vs. A: RR, 1.19 (95% CI, 1.98 to 1.45); RD, 2.15 (95% CI, -0.39 to 4.69)Ages 45 to 65 yearsB vs. A: RR, 1.12 (95% CI, 1.01 to 1.25); RD, 2.30 (95% CI, 0.23 to 4.37)C vs. A: RR, 1.45 (95% CI, 1.21 to 1.71); RD, 8.78 (95% CI, 5.89 to 13.90) |
| Lima,201596 | A. Initiation of ART at ≥500 cells/mm3B. Intiation of ART at <500 cells/mm3C. Initiation of ART at ≥350 cells/mm3D. Initiation of ART at <350 cells/mm3 | Mortality: Age, sex, history of injection drug use, longitudinal adherence to cART, longitudinal viral load, followup timeAIDS-defining illness: History of injection drug use, longitudinal adherence to cART, longitudinal viral load, follow-up time | All-cause mortality, probability (IQR):CD4 <350 cells/mm3, 2000–2006: 0.14 (0.08 to 0.22)CD4 ≥350 cells/mm3, 2000–2006: 0.14 (0.09 to 0.22)CD4 <350 cells/mm3, 2007–2012: 0.05 (0.03 to 0.08)CD4 ≥350 cells/mm3, 2007–2012: 0.02 (0.01 to 0.04)CD4 <500 cells/mm3, 2000–2006: 0.13 (0.08 to 0.22)CD4 ≥500 cells/mm3, 2000–2006: 0.16 (0.10 to 0.24)CD4 <500 cells/mm3, 2007–2012: 0.05 (0.03 to 0.02)CD4 ≥500 cells/mm3, 2007–2012: 0.01 (0.01 to 0.02)AIDS-defining illness, probability (IQR):CD4 <350 cells/mm3, 2000–2006: 0.14 (0.08 to 0.22)CD4 ≥350 cells/mm3, 2000–2006: 0.13 (0.08 to 0.22)CD4 <350 cells/mm3, 2007–2012: 0.05 (0.03 to 0.08)CD4 ≥350 cells/mm3, 2007–2012: 0.03 (0.01 to 0.05)CD4 <500 cells/mm3, 2000–2006: 0.04 (0.02 to 0.08)CD4 ≥500 cells/mm3, 2000–2006: 0.02 (0.01 to 0.03)CD4 <500 cells/mm3, 2007–2012: 0.03 (0.01 to 0.04)CD4 ≥500 cells/mm3, 2007–2012: 0.01 (0.00 to 0.01) |
| Lodi, 201587 | A. Initiation of ART at ≥500 cells/mm3B. Intiation of ART at <500 cells/mm3C. Initiation of ART at <350 cells/mm3 | CD4 count, HIV-RNA, AIDS, calendar period, age of HIV diagnosis, risk group, sex, geographical origin, race/ethnicity, cohort | All-cause mortality, 7-year risk:A: 4.0% (95% CI, 3.8 to 4.2); B: 4.0% (95% CI, 3.8 to 4.3); C: 4.2% (95% CI, 4.0 to 4.5)All-cause mortality, RR (A=1.0 reference standard):B vs. A: 1.02 (95% CI, 1.01 to 1.03); A vs. C: 1.06 (95% CI, 1.03 to 1.10)All-cause mortality, RD (A=0 reference standard):B vs. A: 0.06% (95% CI, 0.02 to 0.11); A vs. C: 0.25% (95% CI, 0.14 to 0.37)All-cause mortality, difference in restricted mean survival time:B vs. A: -2 days (95% CI, -2 to -1); A vs. C: -5 days (95% CI, -6 to -4) AIDS or death, 7-year risk:A: 7.1% (95% CI, 6.8 to 7.3); B: 7.5% (95% CI, 7.2 to 7.8); C: 8.5% (95% CI, 8.2 to 8.8)AIDS or death, RR (A=1.0 reference standard):B vs. A: 1.06 (95% CI, 1.06 to 1.07); A vs. C: 1.20 (95% CI, 1.17 to 1.23)AIDS or death, RD (A=0 reference standard):B vs. A: 0.44% (95% CI, 0.37 to 0.51); A vs. C: 1.41% (95% CI, 1.24 to 1.59)AIDS or death, difference in restricted mean survival time:B vs. A: -7 days (95% CI, -8 to -6); A vs. C: -21 days (95% CI, -23 to -19) |
| Lodi, 201795 | A. Initiation of ART at ≥500 cells/mm3B. Initiation of ART at <500 cells/mm3C. Initiation of ART at <350 cells/mm3 | CD4 cell count, HIV-RNA level, age, sex, mode of acquisition, calendar year, geographical origin, cohort | General HIV population All-cause mortality:B vs. A: RR, 1.03 (95% CI, 1.01 to 1.06); RD, 0.14 (95% CI, 0.04 to 0.28); C vs. A: RR, 1.07(95% CI, 1.02 to 1.15); RD, 0.40 (95% CI, 0.10 to 0.71)Non-AIDS mortality:B vs. A: RR, 1.03 (95% CI, 0.99 to 1.06); RD, 0.07 (95% CI, -0.03 to 0.16); C vs. A: RR, 1.06 (95% CI, 0.97 to 1.16); RD, 0.17 (95% CI, -0.07 to 0.43)All-cause mortality, patients with CD4 ≥500 cells/mm3:B vs. A: RR, 1.30 (95% CI, 1.03 to 1.72); RD, 0.86 (95% CI, 0.10 to 1.45); C vs. A: RR, 1.56 (95% CI, 1.05 to 2.41); RD, 1.62 (95% CI, 0.17 to 2.82)VA populationAll-cause mortality:B vs. A: RR, 1.05 (95% CI, 1.02 to 1.08); RD, 0.69 (95% CI, 0.32 to 1.13); C vs. A: RR, 1.11 (95% CI, 1.05 to 1.18); RD, 1.61 (95% CI, 0.79 to 2.67)Non-AIDS mortality:B vs. A: RR, 1.06 (95% CI, 1.02 to 1.13); RD, 0.40 (95% CI, 0.13 to 0.84); C vs. A: RR, 1.15 (95% CI, 1.04 to 1.30); RD, 1.00 (95% CI, 0.31 to 2.00) |

**Abbreviations:** ART=antiretroviral therapy; cART=combination antiretroviral therapy; CD4=cluster of differentiation 4; CI=confidence interval; IQR=interquartile range; MSM=men who have sex with men; RD=risk difference; RNA=ribonucleic acid; RR=risk ratio; VA=U.S. Department of Veterans Affairs.