| **Study nameAuthor, Year** | **Study design** | **Setting** | **Duration of followup** | **Treatment groups** | **Inclusion criteria** | **Population characteristics** | **Screened****Eligible Enrolled Analyzed****Lost to followup** | **Funding source** | **Quality rating** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *START*Lundgren, 201585 | RCT | Africa, Europe, Israel, North America, South America, Mexico, Australia | 3 years (mean) | A. Immediate ART: CD4 >500 cells/mm3 (n=2,326)B. Deferred ART: CD4 <350 cells/mm3 (n=2,359) | HIV-positive patients age ≥18 years, not yet initiated ART, had no history of AIDS, and were in generally good health, two CD4 counts >500 cells/mm3 at least 2 weeks apart within 60 days before enrollment.Excluded: Pregnant or breastfeeding | A vs. BMean age 36 vs. 36 years27% vs. 27% female Race/ethnicity: 9% vs. 8% Asian; 30% vs. 30% black; 14% vs. 14% Latino/Hispanic; 44% vs. 45% white; 4% vs. 3% other Geographic region:22% vs. 21% Africa; 8% vs. 8% Asia; 2% vs. 2% Australia; 33% vs. 33% Europe/ Israel; 11% vs. 11% North America; 25% vs. 25% South America/MexicoMode of HIV infection:MSM: 56% vs. 55%; heterosexual: 38% vs. 39%; PWID: 2% vs. 1%; blood products/ other/unknown: 5% vs. 6%Time since HIV infection (median): 1 vs. 1 year CD4 count (median): 651 (IQR, 585 to 765) vs. 651 (IQR, 582 to 764)HIV RNA (median): 13,000 vs. 12,550copies/mL | Screened: NR Eligible: NR Enrolled: 4,685Analyzed: 4,473 Lost to followup: 212 | National Institute of Allergy and Infectious Diseases; National Institutes of Health Clinical Center; National Cancer Institute; National Heart, Lung, and Blood Institute; Eunice Kennedy Shriver National Institute of Child Health and Human Development; National Institute of Mental Health; National Institute of Neurological Disorders and Stroke; National Institute of Arthritis and Musculoskeletal and Skin Diseases; Agence Nationale de Recherches sur le SIDA et les Hépatites Virales (France); National Health and Medical Research Council (Australia); National Research Foundation (Denmark); Bundesminister-ium für Bildung und Forschung (Germany); European AIDS Treatment Network; Medical Research Council (United Kingdom); National Institute for Health Research, National Health Service (United Kingdom); and University of Minnesota. Antiretroviral drugs were donated by: AbbVie, Bristol-Myers Squibb, Gilead Sciences, GlaxoSmithKline /ViiV Healthcare, Janssen Scientific Affairs, Merck. | Good |
| *START*O'Connor, 201794 | Same as Lundgren, 2015 | Same as Lundgren, 2015 | Same as Lundgren, 2015 | Same as Lundgren, 2015 | Same as Lundgren, 2015 | Same as Lundgren, 2015 | Same as Lundgren, 2015 | Same as Lundgren, 2015 | Same as Lundgren, 2015 |
| *HPTN 052*Grinsztejn, 201490 | RCT | Botswana, Brazil, India, Kenya, Malawi, South Africa, Thailand, U.S., Zimbabwe | Median 2.1 years | A. Immediate ART: CD4 ≥350 to <550 cells/mm3 (n=886)B. Delayed ART: CD4 ≤250 cells/mm3 (n=877) | HIV-positive member of serodiscordant couple with CD4 ≥350 to <550 cells/mm3 and no previous long-term ART | A vs. BMedian age 33 years (IQR, 27 to 39 years)Mean age <25 years 13% vs. 13%; 25 to 39 years 64% vs. 64%; ≥40 years 24% vs. 23%49% vs. 50% female Geographic region:\* 16% vs. 15% South America; 30% vs. 30% Africa; 54% vs. 55% AsiaCD4 count: 442 (IQR, 373-522) vs. 428 (IQR, 357 to 522)HIV-1 RNA: 4.4 (IQR, 3.8 to 4.9) vs. 4.4 (IQR, 3.9 to 4.9) log10 copies/mL (4.4 log10 copies/mL = 24,119 copies/mL)Note: Only two couples enrolled from the U.S., both were subsequently excluded from the study | Screened: 5,419 couplesEligible: 1,763 HIV-1 infected partnersEnrolled: 1,763Analyzed: 1,701 Lost to followup: 2% (34/176) | National Institute of Allergy and Infectious Diseases; study drug donations from Abbott Laboratories, Boehringer Ingelheim Pharmaceuticals, Bristol-Myers Squibb, Gilead Sciences, GlaxoSmithKline/ViiV Healthcare, and Merck. | Good |
| *HPTN 052*Cohen 201693 | Same as Grinsztejn, 2014 | Same as Grinsztejn, 2014 | Median 5.5 years | Same as Grinsztejn, 2014; HIV uninfected partner:A. Immediate ART (n=901)B. Delayed ART (n=888) | HIV uninfected member of serodiscordant couple | Same as Grinsztejn, 2014; demographic and clinical characteristics of uninfected partners NR | Same as Grinsztejn, 2014 | Same as Grinsztejn, 2014 | Same as Grinsztejn, 2014 |
| *TEMPRANO ANRS 12136 Study*TEMPRANO ANRS Study Group, 201586 | RCT | Ivory Coast | 30 months | A. Early ART: immediate ART initiation upon study enrollment (n=1,033)B. Delayed ART: ART initiation according to criteria described below (n=1,023):1. From March 1, 2008 to November 30, 2009, criteria for ART initiation were: 1 CD4 count <200 cells/mm3 or WHO clinical stage 4; or 1 CD4 count 200 to 350 cells/mm3 and WHO clinical stage 2 or 32. From December 1, 2009 to July 31, 2013, criteria for ART initiation were: 2 consecutive CD4 counts <350 cells/mm3 regardless of WHO clinical stage; or WHO clinical stage 3 or 4 | Age ≥18 years, HIV-1 infection or dual infection with HIV-1 and HIV-2, CD4 count <800 cells/mm3, met no criteria for starting ART according to the most recent WHO guidelines | A vs. BMedian age 35 vs. 35 years80% vs. 77% female Race NR; study conducted in AfricaCD4 459 (IQR, 359 to 575) vs. 466 cells/mm3 (IQR, 369 to 584)HIV-RNA 4.6 (IQR, 4.0 to 5.2) vs. 4.7 (IQR, 4.0 to 5.3) log10 copies/mL (39,811 vs. 50,119) | Screened: 2,962Eligible: 2,560Enrolled: 2,076Analyzed: 2,056 Lost to followup: 3% (58/2076) | French National Agency for Research on AIDS and Viral Hepatitis | Fair |
| *TEMPRANO ANRS 12136 Study*TEMPRANO ANRS Study Group, 201586Cont’d | See above | See above | See above | 3. From August 1, 2013 to study cessation, 2 consecutive CD4 counts <350 cells/mm3, regardless of WHO clinical stage; or WHO clinical stage 3 or 4; or ART may be proposed to persons who have not yet reached the WHO criteria, if their partner is known to be HIV seronegative | See above | See above | See above | See above | See above |

**Abbreviations**: ANRS=Agence Nationale de Recherche sur le SIDA; ART=antiretroviral therapy; CD4=cluster of differentiation 4; HTPN=HIV Prevention Trials Network; IQR=interquartile range; MSM=men who have sex with men; NR=not reported; PWID=persons who inject drugs; RCT=randomized, controlled trial; RNA=ribonucleic acid; START=Strategic Timing of Antiretroviral Treatment; U.S.=United States; WHO=World Health Organization.