**Appendix**

Appendix Table 1. Number of included individuals, number of tests for drug resistance 6 months after ART initiation, number of tests for acquired drug resistance, number of tests where an acquired drug resistance was detected and numbers of virological failure\* episodes by cohort. HIV-CAUSAL Collaboration, 2000-2015.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Included individuals** | **Tests for acquired drug resistance** | | **Tests detecting acquired drug resistance** | | **Virological failure episodes\*** | |
| **Cohort** |  | **N** | **Tests/1000 person-years** | **N** | **Tests/1000 person-years** | **N** | **Episodes/** |
|  | **1000 person-years** |
| AMACS | 4283 | 29 | 2.8 | 25 | 2.5 | 160 | 15.7 |
| ATHENA | 11259 | 305 | 9.3 | 132 | 4.0 | 284 | 8.7 |
| UK CHIC/DRD | 22314 | 1687 | 31.5 | 466 | 8.7 | 876 | 16.3 |
| CoRIS | 6388 | 156 | 12.0 | 50 | 3.8 | 103 | 7.9 |
| UK Register of Seroconverters | 2068 | 173 | 28.5 | 28 | 4.6 | 151 | 24.9 |
| Swiss HIV Cohort Study | 4669 | 322 | 18.9 | 93 | 5.5 | 300 | 17.6 |
| Overall | 50981 | 2672 | 20.1 | 794 | 6.0 | 1874 | 14.1 |

\*Virological failure was defined as the second of two consecutive HIV-RNA≥1000 copies/mL preceded by HIV-RNA≤50 copies/mL.

Appendix Table 2. Examining the potential impact of cohort heterogeneity. Subgroup analyses excluding each cohort in turn. HIV-CAUSAL Collaboration 2000-2015.

|  |  |  |
| --- | --- | --- |
| **Excluded cohort** | **ART initiation strategy** | **Risk at 7 years, % (95% CI)** |
|
| AMACS | Immediate | 3.1 (2.7,3.4) |
| <500 cells/mm3 | 3.0 (2.6,3.2) |
| <350 cells/mm3 | 2.7 (2.4,3.0) |
| ATHENA | Immediate | 3.7 (3.2,4.1) |
| <500 cells/mm3 | 3.6 (3.1,4.0) |
| <350 cells/mm3 | 3.0 (2.9,3.7) |
| UK CHIC | Immediate | 2.1 (1.6,2.4) |
| <500 cells/mm3 | 2.0 (1.5,2.2) |
| <350 cells/mm3 | 1.8 (1.4,2.0) |
| CoRIS | Immediate | 3.4 (2.9,3.7) |
| <500 cells/mm3 | 3.3 (2.8,3.5) |
| <350 cells/mm3 | 3.0 (2.6,3.3) |
| UK Register of seroconverters | Immediate | 3.2 (2.8,3.5) |
| <500 cells/mm3 | 3.1 (2.7,3.3) |
| <350 cells/mm3 | 2.8 (2.5,3.0) |
| Swiss HIV Cohort Study | Immediate | 3.1 (2.7,3.4) |
| <500 cells/mm3 | 3.0 (2.6,3.2) |
| <350 cells/mm3 | 2.7 (2.4,3.0) |
| All cohorts | Immediate | 3.2 (2.8,3.5) |
| <500 cells/mm3 | 3.1 (2.7,3.3) |
| <350 cells/mm3 | 2.8 (2.5,3.0) |

**Appendix Figure.** Cumulative risk of acquired drug resistance and mean of time-varying variables: observed (solid line) and simulated via the parametric g-formula (dashed line).

|  |  |
| --- | --- |
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|  |  |

**Appendix**

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**UK CHIC**

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