Conclusion. We demonstrate the use of an NLP-based pipeline to enhance IDS surveillance. Using NLP-based surveillance with other methods could facilitate case detection and outbreak control for IDS that lack microbiologic data or have novel presentations. Further work will improve the specificity of NLP-based case finding methods and apply this to other IDS.

Disclosures. **All authors:** No reported disclosures.

1766. Sustained Viral Suppression with Dolutegravir and Boosted Darunavir Dual Therapy Among Highly Treatment-Experienced Individuals

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Background. The use of antiretroviral (ARV) dual therapy for treatment of HIV is increasing; raltegravir with boosted darunavir (bDRV) is recommended in certain clinical situations in DHHS guidelines. Dolutegravir (DTG) with bDRV has not been widely studied. We sought to determine the effectiveness of DTG/bDRV in treatment experienced patients.

Methods. This retrospective cohort study evaluated viral suppression in patients prescribed DTG/bDRV dual therapy within a large urban health system. Data collected included demographics, cumulative ARV exposure, reasons for use, regimen start/stop dates, and viral suppression (HIV-RNA ≤200). Follow-up was defined as the number of days from start of regimen until last HIV-RNA determination on the study regimen.

Results. From January 1, 2013 to December 31, 2017, 60 patients received DTG/bDRV dual therapy: 15% were female, median age was 56, 83% were ≥3 class ARV-experienced, and median time since starting ARVs was 20 years. Median follow-up on DTG/bDRV was 444 days (IQR 273–808). Viral suppression was achieved by 59 of 60 (98%) patients at some point on DTG/bDRV. When stratified by baseline viral suppression, 46 of 46 (100%) who had baseline viral suppression maintained viral suppression in comparison to 11 of 14 (79%) without baseline viral suppression (table). The most common reasons for DTG/bDRV were simplification in setting of prior resistance (47%), toxicity reduction (39%), and virologic failure (15%). At study end, 53 of 60 (88%) were still on DTG/bDRV and the most common reason for stopping was drug interactions.

Conclusion. In a highly treatment-experienced cohort of patients, DTG/bDRV dual therapy demonstrated sustained rates of viral suppression, even in those who were failing therapy prior to initiating the regimen. Further study of this potent, simple, high-barrier dual class regimen is warranted.

Table: Virologic Outcomes

	N	Follow-up Days, Median (IQR)	HIV-RNA Ever[a] ≤200 cp/mL	Last[b] HIV-RNA ≤200 cp/mL
Overall	60	444 (273,808)	59 (98%)	57 (95%)
Baseline HIV-RNA suppressed	46	423 (268,817)	46 (100%)	46 (100%)
Baseline HIV-RNA not suppressed	14	613 (392,743)	13 (93%)	11 (79%)

IQR, interquartile range.

[a]Ever refers to achieving suppression at any point while on DTG/bDRV.

[b]Last refers to the last recorded HIV-RNA value while on DTG/bDRV.

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1767. Structured Treatment Interruptions in HIV-Infected Patients Receiving Antiretroviral Therapy—Implications for Future HIV Cure Trials: A Systematic Review and Meta-analysis

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Background. Safety and tolerability of analytical treatment interruption (TI) as part of HIV cure studies has been discussed controversially. In this systematic review and meta-analysis, we report current evidence for the occurrence of adverse effects during different types of TI.

Methods. A systematic literature search on studies reporting on TIs was conducted using a defined search term, covering the period from January 1988 to May 2017. All interventional and observational studies were reviewed, and results were extracted based on predefined criteria. We evaluated the proportion of adverse effects during TI by using a random effect meta-analysis model. A meta-regression model was calculated to explore the variation across studies and the influence of key factors.

Results. We identified 1,048 studies, of which we obtained data from 24 studies investigating TI including 7,961 individuals. Sample sizes varied from 6 to 5,472 subjects. The number of reported events during TI ranged from 0 to 241. Follow-up intervals during TI varied from 2 days up to 3 months. We compared reported adverse effects in studies with long TI (>4 weeks) by the lengths of follow-up intervals, comparing narrow (≤4 weeks) and wide (>4 weeks) follow-up during TI. The proportion of patients exhibiting adverse events during long TI was 1% (95% CI 0–4, I^2 = 24.9%) in studies with narrow and 10% (95% CI 5–117, I^2 = 95.1%) in studies with wide follow-up intervals, with an overall reported rate of 5% (95% CI: 3–15, z = 3.93, $P \leq 0.00$) (Figure 1). The number of reported deaths was relatively low, but higher in studies with wide follow-up compared with studies with narrow follow-up (Figure 2). Meta regression analysis indicated that adverse events were increasing with the length of the monitoring interval (β = 0.75, 95% CI 0.24–1.27, P = 0.007) (Figure 3).

Conclusion. Current evidence indicates that studies with narrow follow-up intervals did not show a substantial increase of adverse effects other than viral rebound during TI. Analytical treatment interruption may be a safe strategy as part of HIV cure trials if patients undergo intense follow-up routines.

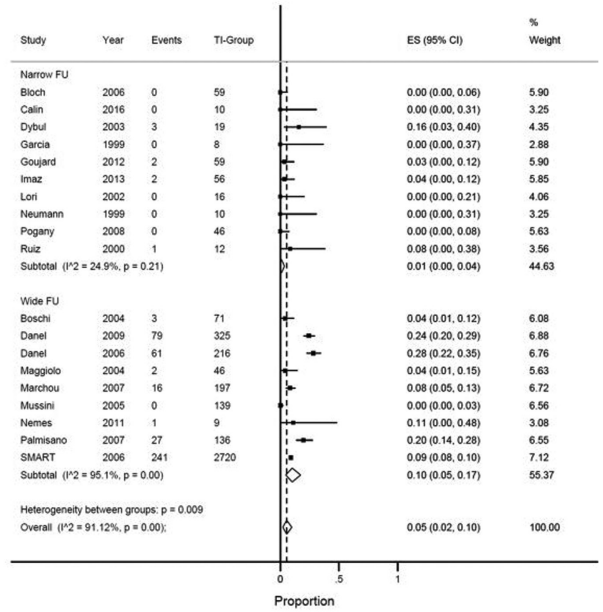

Figure 1: Meta-analysis of the reported proportion of adverse effects in studies with long TI (>4 weeks), stratified by follow-up regime (narrow and wide follow-up intervals during TI). Weights are from random-effect analysis. Diamonds report the pooled estimate of reported adverse effects. Studies are identified by the name of the first author and year of publication. Events= reported adverse effects, TI Group= Number of individuals in treatment interruption group, ES= effect estimates. CI= Confidence interval.

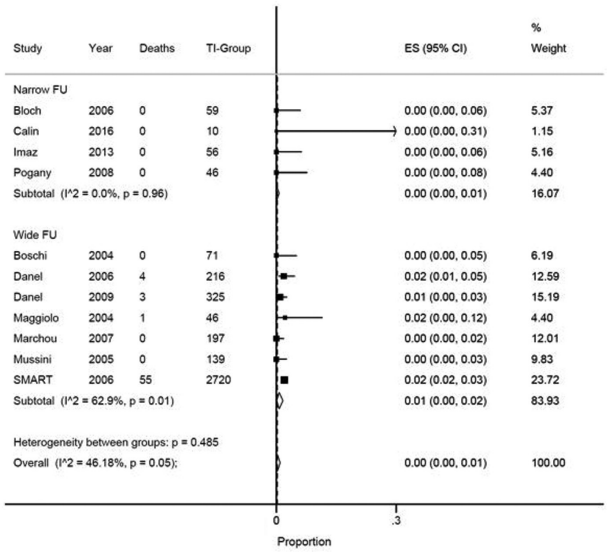

Figure 2: Meta-analysis of the reported deaths in studies with long TI (>4 weeks), stratified by follow-up regime (narrow and wide follow-up intervals during TI). Weights are from random-effect analysis. Diamonds report the pooled estimate of reported adverse effects. Studies are identified by the name of the first author and year of publication. Events= reported adverse effects, TI Group= Number of individuals in treatment interruption group, ES= effect estimates. CI= Confidence interval.