medication for a D/C/F/TAF-related GI AEOI. Among patients with a D/C/F/TAF-related GI AEOI, the median duration was 16.5 days.

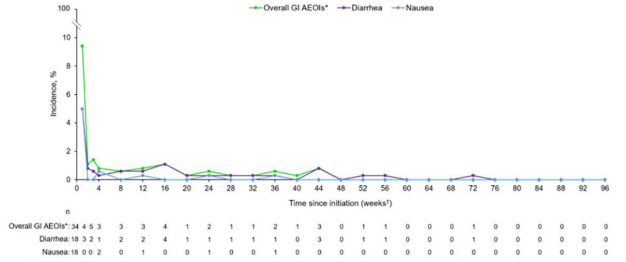
Conclusion. In AMBER, incidences and prevalences of D/C/F/TAF-related GI AEOIs were low and tended to present early in the study. Combined with rapid decreases in prevalence, these finding suggest that GI AEOIs were transient. Overall, the GI profile of D/C/F/TAF was favorable, and to a greater extent than D/C + F/TDF, suggesting improved tolerance vs an older formulation.

Table. Baseline Demographic and Clinical Characteristics

	D/C/F/TAF (n = 362)	D/C + F/TDF (n = 363)
Demographic		
Age, median (IQR), y	34 (27-42)	34 (27-42)
Male, n (%)	318 (88)	322 (89)
Race, n (%)		
White	300 (83)	300 (83)
Black/African American	40 (11)	40 (11)
Other	22 (6)	23 (6)
Clinical		
HIV-1 RNA ≥100,000 copies/mL, n(%)	60 (17)	70 (19)
CD4+ cell count <200 cells/μL, n (%)	22 (6)	29 (8)

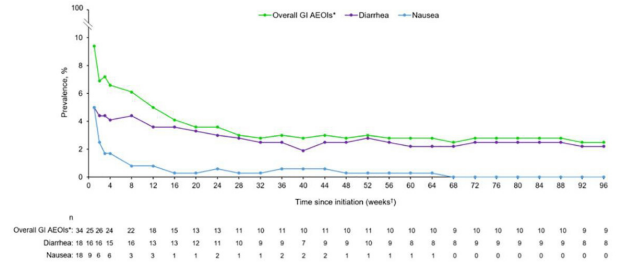
IQR, interquartile range.

Figure 1. Incidence of study drug–related GI AEOIs over time among patients randomized to D/C/F/TAF (n = 362).



*Predefined preferred terms were diarrhea, nausea, flatulence and abdominal discomfort.
†Incidence was evaluated in 1-week intervals for the first 4 weeks, and 4-week intervals thereafter (ie, beginning with Wk 5-8).

Figure 2. Prevalence of study drug–related GI AEOIs over time among patients randomized to D/C/F/TAF (n = 362).



*Predefined preferred terms were diarrhea, nausea, flatulence and abdominal discomfort.
†Incidence was evaluated in 1-week intervals for the first 4 weeks, and 4-week intervals thereafter (ie, beginning with Wk 5-8).

Disclosures. Keith Dunn, PharmD, J&J (Employee, Shareholder) Yangxin Huang, PhD, MS, J&J (Employee) Bryan Baugh, MD, J&J (Employee, Shareholder) Nika Bejou, PharmD, BCIDP, AAHIVP, J&J (Employee, Shareholder) Donghan Luo, PhD, J&J (Employee, Shareholder) Jennifer Campbell, PhD, J&J (Employee, Shareholder) David Anderson, MD, J&J (Employee, Shareholder)

1016. Global trends in Integrase Strand Transfer Inhibitor resistance among HIV-1B Infected Patients

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Session: P-47. HIV: Treatment

Background. Integrase strand transfer inhibitors (INSTIs), a new class of antiretroviral (ART) therapy for HIV, have quickly become a cornerstone of ART regimens globally. Here, we present the prevalence of INSTI resistance globally and over time among people living with HIV/AIDS (PLWHA), clade B.

Methods. To characterize trends in INSTI resistance, we conducted a literature search of articles published after 2010 via Pubmed and posters/abstracts from the Conference on Retroviruses and Opportunistic Infections (CROI) from 2016-2020. Included in our analysis are studies that include more than 100 individuals with INSTI resistance testing, who are infected with HIV clade B. We stratified the studies by country and by time period. We defined two time periods, 2008-2015 during which primarily first generation of INSTI were used (raltegravir and elvitegravir), and 2015-2020 during which second generation INSTIs (dolutegravir and bictegravir) use became widespread. We considered drug-resistance associated mutations (DRAM) in both ART-naive and in ART-experienced PLWHA.

Results. Overall, we reviewed 31 papers and 11 CROI abstracts that met the inclusion criteria. We observed that prevalence of DRAM in naïve patients is low globally and has remained low over time, ranging from 0%-8%. Meanwhile, we observed a downward trend in DRAM among INSTI-experienced patients from the 2008-2015 period to the 2015-2020 period from 11%-47.6% to 8%- 32.1%, reflecting higher barrier to resistance described *in vivo* among the 2nd generation INSTIs. See table below.

INSTI Resistance Summary Results Table

	1st Time Period: 2008-2015		2nd Time Period: 2015-2020	
Countries (# papers)	**DRAM in ART-naïve**	**DRAM in ART-experienced**	**DRAM in ART-naïve**	**DRAM in ART-experienced**
Europe:				
France (4)	**Prevalence 6.7%** **Most Common Mutations**: T97A (3.2%), E157Q (2.2%)		**Prevalence 5.3% - 9.2%** **Most Common Mutations: L74M (2.3%) , E157Q (4.4%)**	**Prevalence 42%* - 47%*** **Most common Mutations:** N155H (45.2%), Q148H/K/R (45.2%), T97A (45.2%)
Italy (7)	**Prevalence 0% - 1.3%** **Most common mutations:** T66I (0.06%), R263K (0.3%)	**Prevalence 11.7% - 37%** **Most Common Mutations:** N155H(16.8%), Y143R (6.3%), G140S (7.06%)	**Prevalence 0.011% - 0.6%** **Most common mutations: E138K (0.06%), G140S+Q148H (0.06%), Y143Y/C/H/R (0.06%), N155H (0.06%)**	**Prevalence 26% - 32.1%** **Most Common Mutations:** G140S (5.1%), Y143R (4.2%), Q148H (4.2%)
Spain (3)	**Prevalence 0.1% - 2.7%** **Most Common Mutations**: T97A (2.3%)		**Prevalence 0.2%** **Most Common Mutations:** T97A (2.3%)	
UK (2)	**Prevalence 0%**		**Prevalence 0.94%** **Most Common Mutations:** T66IT (0.94%)	
Multi-country Europe (2)	**Prevalence 0%**	**Prevalence 44.3%** **Most Common Mutations:** N155H (22.4%), Q148H/R/K (17.3%		
North America				
Canada (3)	**Prevalence 4%** **Most Common Mutations: R263K (0.04%)**	**Prevalence 0.8% - 4.6%** **Most common mutations:** Q148H(0.03%) N155H(0.03%)		
USA (13)	**Prevalence 0.8% -1.5%** **Most Common Mutations**: R236K (18%), N155H (18%)	**Prevalence 0%**	**Prevalence 0.09% - 1.1%** **Most Common Mutations:** Y143H(23%) and Q148H (23%)	**Prevalence 8%** **Most Common Mutation: E92Q (81%)**
South America				
Brazil (1)		**Prevalence 21%** **Most Common Mutations: G140(7%) and E138(1%)**		**Prevalence 13.7%** **Most Common Mutations: G140(7%) E138(1%)**
Asia				
South Korea (1)			**Prevalence 3.4%** **Most Common Mutations:** E92Q (100%)	**Prevalence 22%** **Most Common Mutations: Y143C (30%), E92Q (30%), N155H (30%)**
Taiwan (2)	**Prevalence 0.9%** **Most Common Mutations:** Q148H/K/R (0.7%)	**Prevalence: 47.6%** **Most Common Mutations:** Q148H/K/R (19%)	**Prevalence 0%**	

* = Among those who have failed INSTI-containing regimens

Conclusion. Here, we have analyzed the trends in INSTI prevalence over time and in different countries for HIV1 clade B. We demonstrate that globally, INSTI DRAM among INSTI-naïve patients are rare and incidence does not increase significantly over time despite increased usage. In addition, published studies showed a downward trend in INSTI DRAM among INSTI-experienced patients after 2015, reflecting the higher barrier to resistance in the second generation INSTIs. The most commonly occurring INSTI DRAMs observed were N155H (more common in the era of f1st generation INSTI), Q148H/K/R, and G140S. As INSTI usage continues to increase globally, continued vigilance and surveillance is needed to monitor continued INSTI resistance over time.

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

1017. Haves vs. Have-Nots in Healthcare Communication: Examining the Paradox Where PLHIV Who Need Quality Discussions with their Providers the Most, Access it the Least

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Session: P-47. HIV: Treatment

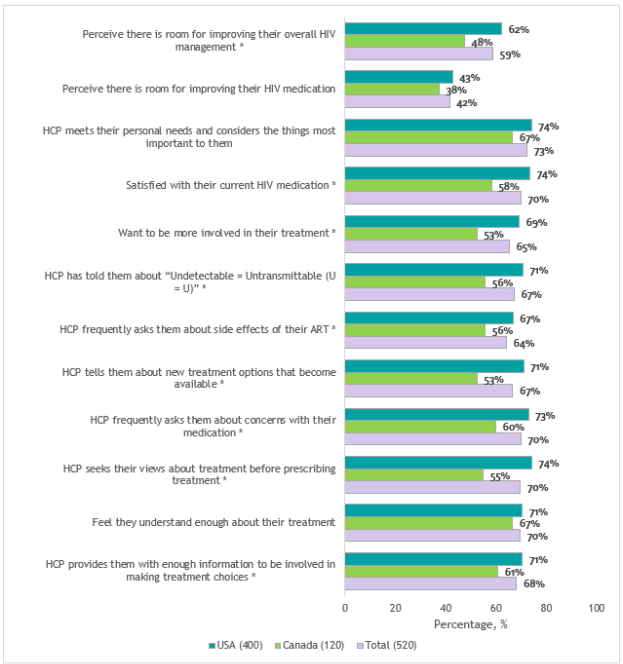
Background. Quality communication between patients & HCPs is important to help to identify/address treatment gaps. Who initiates this communication may vary, but impact of good quality communication as a marker of successful care has not been fully explored in PLHIV. We investigated whether perceived comfort discussing salient issues with HCPs differed between PLHIV with vs without specific treatment challenges.

Methods. We analyzed self-reported data for 520 PLHIV from the 2019 Positive Perspectives study from Canada and USA. Engagement in care (low, moderate, high), was modified from the Observing Patient Involvement scale. Using Chi-squared tests, we compared communication barriers among those uncomfortable discussing with their HCP ($p< .05$).

Results. Mean age was 39.6 years. Perceived comfort discussing salient issues with HCPs was significantly lower among PLHIV with than without the specified challenges: discussing side effects (those experiencing side effects=50.4%[135/268] vs without=60.7%[153/252], p=.018); discussing privacy concerns (those hiding medications=41.3%[138/334] vs not hiding =66.7%[124/186], $p< .001$); discussing adherence challenges (those with suboptimal =42.4%[78/184] vs optimal adherence=57.7%[194/336], p=.001); discussing concerns about HIV illnesses (those without viral suppression=43.1%[90/209] vs virally suppressed=64.6%[201/311], $p< .001$); and discussing impact of HIV on their life (45.4%[100/220] vs 62.7%[188/300] among those reporting vs not reporting that HIV negatively impacts their life, respectively, $p< .001$). Among those uncomfortable discussing HCP/clinic-related barriers (eg, no time during visits, worried HCP might perceive them as "difficult") and limited self-efficacy were particularly more prevalent among those with vs without specific challenges (Figure 2). Pooled analysis showed that optimal self-rated health was 33.9%[42/124]; 52.1%[112/215]; and 68.5%[124/181] among those with low, moderate, & high engagement ($p< .001$, Figure 3).

Figure 1

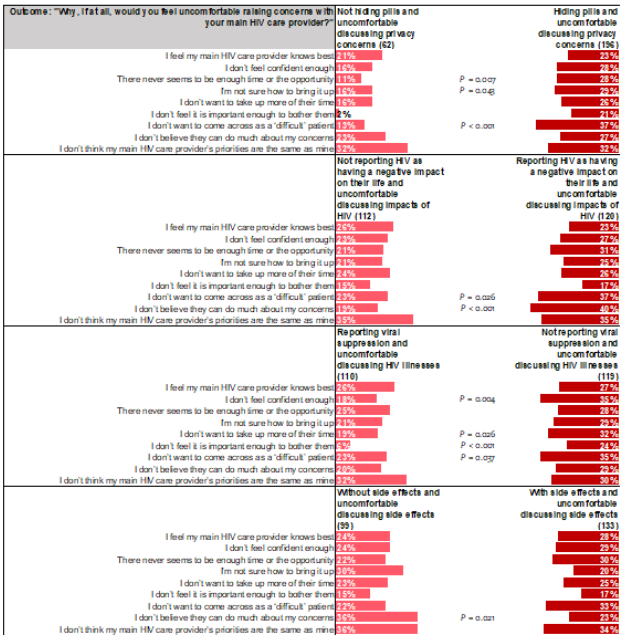
Figure 1. Indicators of communication between HCPs and PLHIV in Canada and the USA.



P < 0.05 for the difference between the U.S.A and Canada.

Figure 2

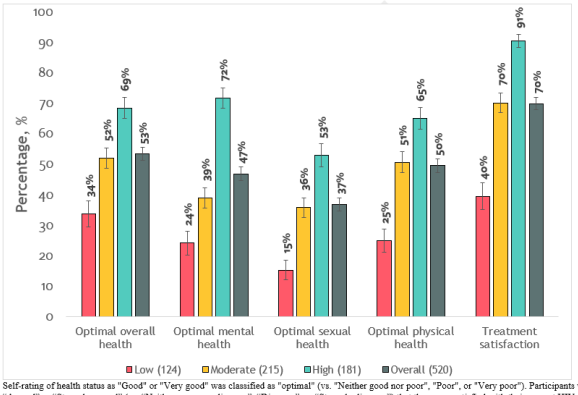
Figure 2. Comparisons of perceived barriers between those with vs. without specific unmet needs, among those who reported being uncomfortable discussing the specified issue with their healthcare provider.



P-values shown for only statistically significant results

Figure 3

Figure 3. Relationship between extent of patient engagement in care and health-related outcomes among people living with HIV in Canada and the U.S.A



Self-rating of health status as "Good" or "Very good" was classified as "optimal" (vs. "Neither good nor poor", "Poor", or "Very poor"). Participants who "Agreed" or "Strongly agreed" (vs. "Neither agree nor disagree", "Disagree", or "Strongly disagree") that they were satisfied with their current HIV medication were classified as reporting treatment satisfaction.

Conclusion. Individuals uncomfortable discussing issues with their HCP reported greater treatment challenges. Proactive HCP-driven high-quality communications with all patients is necessary to help address these concerns.

Disclosures. Patricia De Los Rios, MSc, GlaxoSmithKline (Shareholder) ViiV Healthcare (Employee) Benjamin Young, MD, PhD, ViiV Healthcare (Employee) Marvelous Muchenje, BSW, MSc. in Global Health, ViiV Healthcare Canada (Employee) Nicolas Van de Velde, PhD, GlaxoSmithKline (Shareholder) ViiV Healthcare (Employee) Chinyere Okoli, PharmD, MSc, DIP, ViiV Healthcare (Employee)

1018. Health Technology Assessment of New Long-Acting, Directly-Observed HIV Treatments in Canada: Impact of Real-World Adherence to Daily Oral Therapy on Treatment, Transmission and Cost-Effectiveness

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