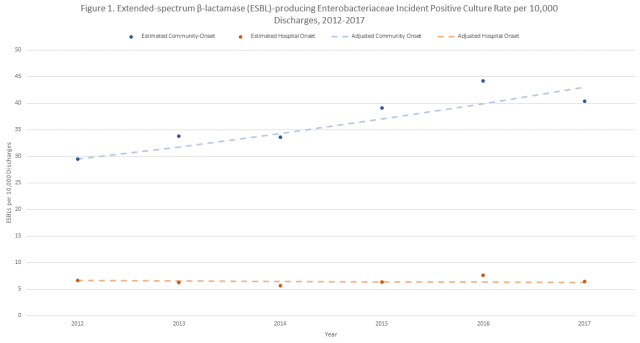
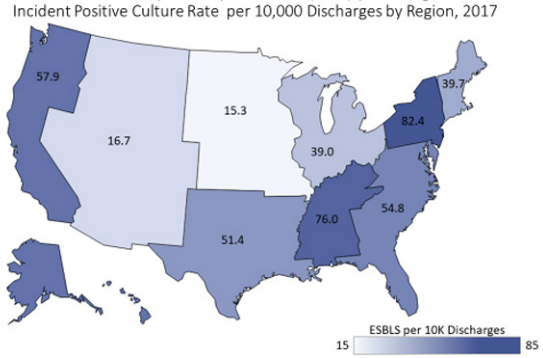


Figure 2. Estimated Extended-spectrum β-lactamase (EBSL)-producing Enterobacteriaceae Incident Positive Culture Rate per 10,000 Discharges by Region, 2017



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

2480. Communication During Patient Transfers: Describing Gaps in the Infectious Status Information Pipeline

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Session: 261. HAI: Surveillance, Regional

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Background. Fragmented communication of patients' infectious status across healthcare networks impact regional spread of multidrug-resistant organisms (MDRO). This study aimed to quantify gaps in communication of patient MDRO status across Utah healthcare facilities and to identify opportunities to improve.

Methods. This is a cross-sectional retrospective mixed-methods study of patient transfers from three purposively selected healthcare facilities: an acute care (ACF), long-term acute care (LTAC), and skilled-nursing facility (SNF). Patients with known MDRO transferred out of these facilities over the previous week were identified in bi-monthly samples spanning 2 months. Infection preventionists and admission nurses from facilities receiving these patients were interviewed.

Results. Of 293 patients transferred to another facility, 13% (n = 38) had an active infection or colonization with an MDRO. These 38 patients were transferred to 26 healthcare facilities within the state (4 ACF, 3 LTAC, 19 SNF). Gram-negative organisms with resistance to a carbapenem accounted for 15.8% of those transferred with an MDRO. There was no documentation of the state infection control transfer form (ICTF) at the sending facility for 68.5% of MDRO patient transfers. Of 22 admitting nurses interviewed, 19 (86.4%) did not receive an ICTF, 6 (27.3%) received no communication regarding patients' infectious status, and 11 (50%) had to contact the sending facility for additional information. Moreover, 18.2% of patients had not been put on appropriate precautions. Several nurses expressed confusion with MDRO definitions and lack of guidance regarding care of MDRO colonized patients. Among infection preventionists asked about general MDRO transfers (n = 26), 26.9% reported that communication on infectious status of MDRO patients was received in under 40% of incoming transfers. When asked about a planned statewide MDRO registry, 80.8% felt that such a system would be actively searched at their facility, and 96.2% felt that a system that pushes out alerts would be useful.

Conclusion. Given the widespread gaps in communication of infectious status of patients with MDROs transferred across the healthcare facilities sampled, efforts to standardize and improve MDRO communication in the region is warranted.

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

2481. Comparing inter-hospital patient movement patterns to better understand mechanisms for regional dissemination of carbapenem-resistant Enterobacteriaceae

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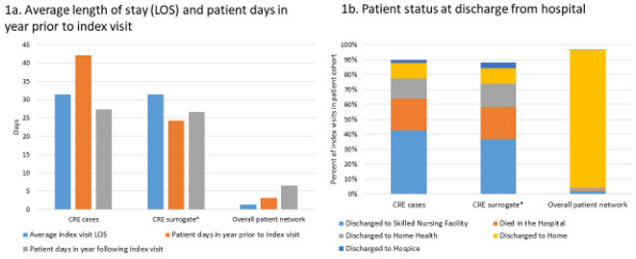
Background. Understanding inter-hospital movement of patients provides insight into regional transmission of multidrug-resistant organisms (MDROs) that can guide containment efforts. Movement of general patient populations are often used for this purpose, but movement of the specific patient population of MDRO carriers may be more useful. We sought to compare movement of CRE patients with that of other patient populations to explore whether CRE carriers move differently, and if so, to determine whether administrative data can be used to identify patient populations with transfer patterns that mimic CRE patients.

Methods. We used New York's Statewide Planning and Research Cooperative System (SPARCS), to create a patient network of all acute care hospital encounters ("overall hospital population") during 2013–2015. We identified the subset of CRE cases in the network by linking the SPARCS data to CRE cases reported to the National Healthcare Safety Network in 2014, matching on admission date, date of birth, gender, and facility. We described patient characteristics and movement patterns across 3 cohorts: (1) CRE cases, (2) overall hospital population, (3) CRE surrogate (patients clinically similar to CRE cases based on length of stay [LOS] ≥14 days and Clinical Classification Software [CCS] category of sepsis plus at least one of the following additional CCS categories: adult respiratory failure, acute renal failure, procedure complication or device complication). Correlations between cohorts were calculated using patient transfer matrices to determine similarities between the networks.

Results. The average LOS for CRE cases was 25× higher than the overall hospital population (31.4 vs. 1.3 days, Figure 1a), and CRE cases were more likely to die or be discharged to a skilled nursing facility (Figure 1b). CRE movement networks were only moderately correlated with the overall hospital population (R^2 = 0.51); there was higher correlation between CRE case and CRE surrogate networks (R^2 = 0.73).

Conclusion. CRE patients have different healthcare experiences in the hospital and between hospitals in New York compared with the overall hospital population. The CRE surrogate cohort transfer patterns were more similar, and could be used to understand CRE patient movement in the absence of CRE culture data.

Figure 1. Patient characteristics of index visits* by cohort



*index visit was defined as the first visit with a CRE culture for CRE patients, the first visit in 2014 meeting the cohort definition for the CRE surrogate and the first hospital visit (inpatient or outpatient) in 2014 for the overall patient network.
*defined as LOS >= 14 days and a Clinical Classification Software (CCS) diagnosis of sepsis with at least one additional CCS category: adult respiratory failure, acute renal failure, procedure complication or device complication

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

2482. Clinical Outcomes of Once-Daily Darunavir in Treatment-Experienced Patients with Darunavir Resistance Associated Mutations Through 48 Weeks of Treatment

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Session: 262. HIV: Antiretroviral Therapy

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Background. Darunavir (DRV) is a well-tolerated, potent protease inhibitor used once-daily in patients with no DRV resistance-associated mutations (RAMs) and twice-daily in those with DRV RAMs. Treatment guidelines encourage use of once-daily regimens to optimize patient adherence, convenience and tolerability. Several studies suggest that once-daily DRV retains efficacy in the setting of 1–2 DRV RAMs whereas 3 or more DRV RAMs (with multiple background PI RAMs) is needed for DRV resistance. Currently, there is little clinical data to support the long-term use of once-daily DRV in patients with DRV RAMs.

Methods. This is a retrospective study evaluating the 48-week clinical outcomes of 22 treatment-experienced patients with DRV RAMs switched to once-daily DRV between 2014 and 2017 at the Orlando Immunology Center. The primary endpoint was the proportion with virologic suppression (HIV-1 RNA< 50 copies/mL) at Week 48. Adherence, adverse events (AEs) and laboratory parameters were analyzed throughout the study.

Results. The median age (range) of the sample was 53 (21–77) years, median baseline CD4+ count was 609 cells/mm3, 18 (82%) had baseline HIV-1 RNA <50 copies/mL, 15 (69%) had previously used 1 or more PIs and median number (range) of

baseline DRV RAMs was 2 (1–5) (Table 1). At Week 48, 20 (91%) had HIV-1 RNA <50 copies/mL; 2 (9%) virologic non-responders had HIV-1 RNA of 82 and 59,637 copies/mL and reported noncompliance (Figure 1). There was no significant change in median CD4+ count from baseline to Week 48 (+22, 95% confidence interval (CI): [−116.5; 56.0]). Once-daily DRV was associated with a significant median increase in HDL cholesterol (+82, 95% CI: [37.0; 101.0]) and a significant median decrease in LDL cholesterol (-60, 95% CI: [-89.5; -31.0]). There were no significant changes in the proportion of patients on lipid lowering therapy at baseline and week 48 (p = 0.33). There were no self-reported AEs or Grade 3–4 lab abnormalities through Week 48.

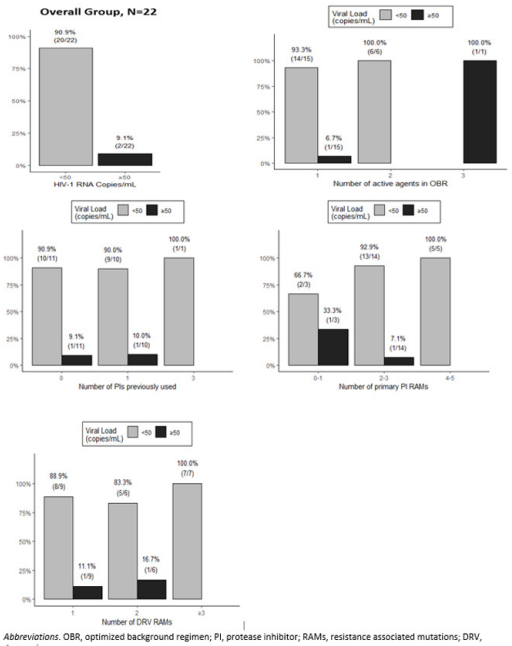
Conclusion. Once-daily DRV maintained virologic control in this cohort of treatment-experienced patients with 1 or more baseline DRV RAMs and was safe and well-tolerated. This suggests that once-daily DRV may be effective in this population however further data are needed to validate this as a viable treatment option.

TABLE 1-Baseline demographic and clinical characteristics

Characteristic	N=22
Median Age (range)	53 (21, 77)
Sex	
Male, n (%)	20 (91)
Female, n (%)	2 (9)
Race/Ethnicity	
Caucasian, n (%)	8 (36)
Black, n (%)	3 (14)
Hispanic, n (%)	5 (23)
Other, n (%)	6 (27)
Median BMI (range)	27.7 (19.9, 40.8)
Baseline HIV Viral Load	
<50 copies/mL, n (%)	18 (82)
51-200 copies/mL, n (%)	2 (9)
201-399 copies/mL, n (%)	0
≥400 copies/mL, n (%)	2 (9)
Median Baseline CD4⁺ cell count, cells/mm³ (range)	608.5 (293, 1268)
HIV Disease status	
Asymptomatic, n (%)	18 (82)
Symptomatic, n (%)	4 (18)
AIDS, n (%)	0
Prior ARV Experience	
0 PIs, n (%)	7 (32)
1 PI, n (%)	13 (59)
≥2 PIs, n (%)	2 (9)
>2 NRTIs, n (%)	8 (36)
≥1 NNRTI, n (%)	13 (59)
1 INSTI, n (%)	17 (77)
>1 INSTI, n (%)	2 (9)
Median Number of ARV regimens prior to DCR (range)	3 (1, 7)
Baseline DCR (# of active ARVs excluding DRV)	
1 active agent, n (%)	15 (68)
2 active agents, n (%)	6 (27)
3 active agents, n (%)	1 (5)
Baseline genotypic resistance	
NRTI RAMs, median (range)	6 (0, 12)
NNRTI RAMs, median (range)	1 (0, 4)
INSTI RAMs, median (range)	0 (0, 1)
PI RAMs, median (range)	9 (2, 15)
Primary PI RAMs, median (range)	3 (0, 5)
DRV RAMs, median (range)	2 (1, 5)

Abbreviations. BMI, Body Mass Index; ARV, antiretroviral; PI, protease inhibitor; NRTI, Nucleoside Reverse Transcriptase Inhibitor; NNRTI, Non-Nucleoside Reverse Transcriptase Inhibitor; INSTI, Integrase Strand Transfer Inhibitor; DCR, DRV containing regimen; RAMs, resistance associated mutations

FIGURE 1-Subgroup Analysis of Virologic outcomes at Week 48



Abbreviations. OBR, optimized background regimen; PI, protease inhibitor; RAMs, resistance associated mutations; DRV, darunavir

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

2483. Characteristics and Outcomes Over First 12 Months of a Two-Drug Regimen (Dolutegravir/Rilpivirine) for Treatment of HIV-1 in the United States

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Background. In 2017, the first complete antiretroviral regimen (ART) containing only two drugs, dolutegravir/rilpivirine (DTG/RPV), was approved for treatment of HIV-1 in virologically suppressed (<50 copies/mL) patients on a stable ART regimen for ≥6 months with no history of treatment failure/resistance to DTG or RPV. Our objective was to characterize early utilization/outcomes of DTG/RPV in a real-world population.

Methods. HIV-1+ individuals initiating DTG/RPV from January 1, 2018 to December 31, 2018 were identified in the OPERA Database. Outcomes were evaluated among the virologically suppressed subgroup who initiated in the first 6 months. Discontinuation (d/c) was defined as cessation of DTG/RPV. Virologic failure (VF) was defined as either 2 consecutive HIV viral loads (VL) ≥ 200 copies/mL OR 1 VL ≥200 copies/mL + d/c. Population was observed from DTG/RPV start (index) until the first of: (a) d/c, (b) death, or (c) study end (December 31, 2018). Demographic and clinical characteristics were described at index. Kaplan–Meier methods were used to describe d/c and VF.

Results. A total of 880 patients were prescribed DTG/RPV in the first 12 months; demographic and clinical characteristics are described in Figures 1 and 2. Most (76%) DTG/RPV users were virologically suppressed at initiation (n = 671). Among the 197 (22%) ART experienced, viremic initiators, a third had a baseline VL ≥ 50 but <200. Few patients were ART naïve (n = 12, 1%). Index VL was unavailable for 21 (5%) initiators. Comorbidity was prevalent: 59% had ≥1 endocrine disorders; 42% hypertension, and 33% mental disorders. For the virologically suppressed at initiation, with ≥6 months of follow-up (n = 340); median (IQR) days on DTG/RPV was 248 (204–299); 88% remained on DTG/RPV at study end. Among the 42 (12.4%) discontinued patients, 41% were virologically stable (<200 copies/mL) at d/c. Median (IQR) days to d/c was 58 (29–141) (Figure 3). Most patients (n = 288, 85%) had ≥ 1 VL during follow-up; 79% (n = 270) had ≥1 VL during the first 24 weeks. Among these, VF occurred in 1.5% patients. Median (IQR) time to VF was 5.1 (2.0–9.2) months (Figure 4).

Conclusion. While DTG/RPV initiators were primarily ART-experienced, virologically suppressed individuals older than 50 years of age challenged by significant comorbid conditions, the frequency of d/c or VF in the first 12 months was low.

Figure 1. Baseline demographics of patients initiating DTG/RPV

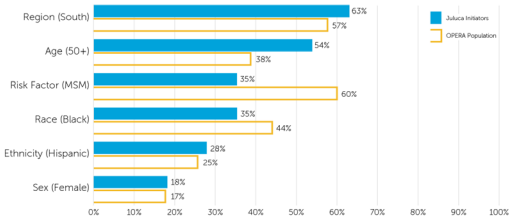

Figure 2. Baseline clinical characteristics of patients initiating DTG/RPV

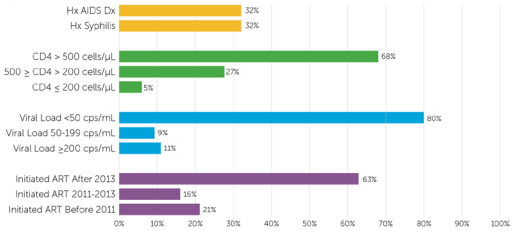

Figure 3: Unadjusted cumulative probability of DTG/RPV discontinuation among virologically suppressed at initiation patients