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Background. Fragmented communication of patients' infectious status across healthcare networks impact regional spread of multidrug-resistant organisms (MDROs). 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 spans 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.

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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 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 (R² = 0.51); there was higher correlation between CRE case and CRE surrogate networks (R² = 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

1a. Average length of stay (LOS) and patient days in year prior to index visit
1b. Patient status at discharge from hospital

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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 (+2, 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.

**Conclusions.** 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) | 51 (21, 79) |
| 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) |
| | 50-200 copies/mL, n (%) | 2 (9) |
| | >200 copies/mL, n (%) | 2 (9) |
| Median-Baseline CD4+ cell count, cells/mm³ (range) | 608.5 (203, 1,068) |
| HIV Disease status | Asymptomatic, n (%) | 18 (82) |
| | Symptomatic, n (%) | 4 (18) |
| | AIDS, n (%) | 0 |
| Prior ARV Experience | 0%, n (%) | 7 (32) |
| 1%, n (%) | 13 (59) |
| ≥2%, n (%) | 2 (9) |
| >2 NLTR, n (%) | 8 (36) |
| >3 NLTR, n (%) | 13 (59) |
| 1 NLTR, n (%) | 17 (77) |
| >3 NLTR, n (%) | 3 (14) |
| Median Number of ARV regimen prior to DOR (range) | 9 (1–27) |
| Baseline DOR 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, n (%) | 6 (0, 12) |
| NNRTI, n (%) | 1 (0, 4) |
| INI, n (%) | 0 (0, 3) |
| PI, n (%) | 9 (0, 15) |
| Primary PI RAMs, n (%) | 0 (0, 3) |
| DRV/RAMs, n (%) | 2 (0, 5) |

**FIGURE 1** Subgroup Analysis of Virologic outcomes at Week 48

**Figure 1.** Baseline demographics of patients initiating DTG/RPV

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

**Figure 3.** Time to discontinuation (d/c) or virologic failure (VF) among 880 patients initiated DTG/RPV in the first 12 months

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