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1902. A Survey of Pediatric Bone Marrow Transplant Centers Regarding Local Cytomegalovirus Prophylaxis Management Practices and Interest in a Future Randomized Trial

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Figure 1: Prevalence of seronegative samples to measles analyzed according to HIV status and age group (n=2663)

	% NEG	% NEG+IND
HIV+ (n=348)	28.16	40.8
HIV- (n=2663)	22.9	33.2
p	0.031	0.005
HIV+ <40 years	32.5	45.3
HIV+ >40 years	14.5	31.3
p	0.002	0.02
HIV- <40 years	26.4	38.3
HIV- >40 years	14.0	20.2
p	<0.001	0.001

NEG: Negative IND: Indeterminate
 NOTE: The method to determine antibodies to measles include an "indeterminate" or "grey" zone of values (VIDAS® Measles IgG, Biomerix)

Figure 2: Proportion of seronegativity to measles according to age and HIV status

HIV status	Age group	N, total	N, negative	N, neg + ind	% neg	% neg + ind
POSITIVE	50-60	12	0	1	0%	8%
	40-49	71	12	25	7%	35%
	30-39	169	56	74	33%	44%
	18-29	96	30	46	31%	48%
NEGATIVE	50-60	270	13	20	5%	7%
	40-49	380	78	111	21%	29%
	30-39	1115	303	438	27%	39%
	18-29	550	132	200	24%	36%

Neg: Negative Ind: Indeterminate %: Percentage

Disclosures. E. Bissio, MSD: Employee, Salary. M. E. Perez Carrega, MSD: Employee, Salary. J. L. Montes, MSD: Employee, Salary.

1901. Safety, Tolerability, and Efficacy of Fluoxetine as an Antiviral for Enterovirus D68 Associated Acute Flaccid Myelitis: A Retrospective Multicenter Cohort Study

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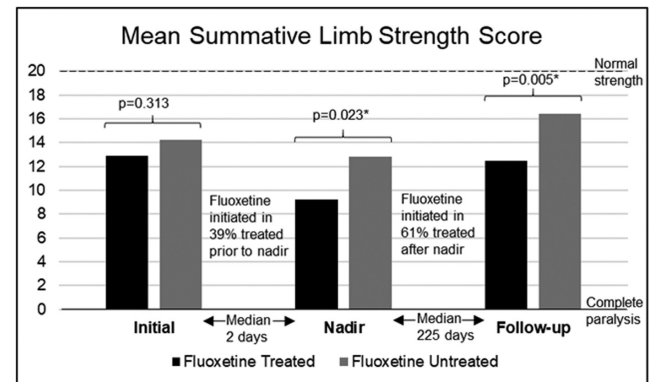
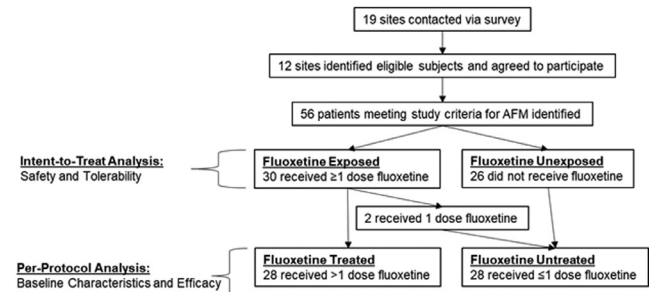
Background. Most patients with enterovirus (EV) D68-associated acute flaccid myelitis (AFM) have long-term disability. No effective therapies have been identified. Fluoxetine is the only FDA-approved medication with *in vitro* antiviral activity against EV-D68. This study retrospectively analyzed the safety, tolerability, and efficacy of fluoxetine for EV-D68-associated AFM.

Methods. A multicenter cohort study of US children with AFM in 2015–2016 compared serious adverse events (SAEs), adverse effects, and outcomes between fluoxetine-treated patients and untreated controls with AFM. Fluoxetine was administered

at the discretion of treating providers with data gathered retrospectively. The primary outcome was summative limb strength score (SLSS; sum of Medical Research Council strength in all four limbs).

Results. 56 patients with AFM from 12 centers met study criteria (Figure 1). Among 30 patients exposed to fluoxetine, no SAEs were reported and adverse effects were similar to controls ($P = 0.16$). The 28 patients treated with >1 dose of fluoxetine were more likely to have EV-D68 identified (57.1% vs. 14.3%, $P = 0.001$). Fluoxetine-treated patients had similar strength on initial examination compared with untreated controls (mean SLSS 12.9 vs. 14.3, $P = 0.313$), but more severe paralysis at nadir (mean SLSS 9.25 vs. 12.82, $P = 0.023$) and latest follow-up (mean SLSS 12.5 vs. 16.4, $P = 0.005$) (Figure 2). In propensity-adjusted analysis, SLSS from initial examination to latest follow-up decreased by 0.2 (95% CI: -1.8 to +1.4) in fluoxetine-treated patients and increased by 2.5 (95% CI: +0.7 to +4.4) in controls ($P = 0.015$).

Conclusion. Fluoxetine was safely administered and relatively well-tolerated. Patients with AFM treated with fluoxetine were more likely to have EV-D68-associated disease and had more severe paralysis at nadir and poorer long-term outcomes. These data do not suggest a positive efficacy signal for fluoxetine as a potential antiviral therapy for AFM.



Disclosures. All authors: No reported disclosures.

1902. A Survey of Pediatric Bone Marrow Transplant Centers Regarding Local Cytomegalovirus Prophylaxis Management Practices and Interest in a Future Randomized Trial

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Background. Cytomegalovirus (CMV) is a major source of morbidity and mortality after hematopoietic cell transplantation (HCT). A recent adult trial comparing letermovir to placebo, found this agent to be efficacious in preventing CMV reactivation with limited toxicity. Additional investigation of letermovir in pediatric HCT recipients is needed. To inform the feasibility of a pediatric trial, we surveyed bone marrow transplant (BMT) centers registered with the Children's Oncology Group (COG) regarding their CMV management practices and interest in a pediatric trial for CMV prevention.

Methods. A brief 6-item questionnaire was created using REDCap™ and distributed by email to all COG-approved BMT Centers. The initial email request was sent on March 26, 2018 to the BMT physician representative listed in the COG member roster. A follow-up request was sent on April 2, 2018. The questionnaire requested information about CMV prophylaxis strategies, including antiviral agent(s) employed, and interest in a pediatric trial of CMV prophylaxis.

Results. The questionnaire was emailed to 89 BMT centers and was completed at 57 (64%). Of these, 23 (40%) reported giving prophylaxis to all or a subset of allogeneic/haploidentical HCT recipients. The most common indication for CMV prophylaxis (21/23)

was a CMV recipient-positive, donor-negative allogeneic/haploidentical HCT recipient. Two centers provided prophylaxis to all cord blood recipients regardless of CMV status. Among these 23 prophylaxis centers, there were 10 different reported prophylaxis regimens. Fifty-one (89%) respondents confirmed an interest in a randomized trial to assess the efficacy of letermovir prophylaxis against CMV reactivation. The preferred comparator for such a trial was placebo/nothing (55%) followed by high dose acyclovir (24%).

Conclusion. A significant proportion (40%) of pediatric BMT centers in the United States administer CMV prophylaxis to at least a subset of their HCT recipients. The variation in prophylaxis regimens highlights the lack of comparative effectiveness data to guide clinical decisions. Nearly all centers, regardless of whether they currently provide prophylaxis, reported an interest in a trial assessing the utility of letermovir prophylaxis in children.

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1903. Cost Minimization Analysis of a Preferred ARV Prescribing Pathway for Treatment-Naïve HIV-Positive Patients

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Background. There were 266 new attendees to the HIV clinic of St. James' Hospital in 2016. HIV care is expensive. The modelled lifetime cost of treating one HIV-positive patient in the UK is estimated at £360,800, with ARVs accounting for 68% of the cost. This audit aims to assess potential savings in ARV spend if a cost-based prescribing approach was adopted for suitable treatment-naïve patients of the clinic.

Methods. A retrospective analysis of newly attending HIV-positive patients attending the HIV Clinic in 2016 was undertaken. Treatment-naïve patients were identified. 2016 ARV drug acquisition costs were obtained from the St. James' Hospital Finance department. The cost of first-line ARV regimens were calculated. Patients were evaluated for their suitability for the lowest-cost, first-line ARV regimen by analysing baseline viral loads, CD4 counts, resistance patterns, renal function, bone health and HLA B5701 status. The price difference between their prescribed regimens and the most cost-effective first-line regimen was calculated.

Results. From January to December 2016, there were 266 new attendances. One hundred fifty-four of these patients (58%) were treatment naïve. The treatment regimens were ascertained for 145/154 (94%). A cost difference of approx. €390 per month existed between the most expensive and least expensive first-line ARV regimens. The monthly cost of ARV regimens prescribed came to €152,949.09, equating to an annual spend of €1,835,389.08. The predicted monthly ARV cost of the cost-based prescribing approach has been calculated at €139,186.27 with an annual cost of €1,670,235.24. This would lead to an annual saving of €165,153.84, equating to 9% of the 2016 ARV spend for this population.

Conclusion. This audit outlines the potential cost-effectiveness of a cost-based prescribing approach for suitable treatment-naïve patients that also adheres to best clinical practice guidelines. It demonstrates that significant cost savings (9%) can be made by simple analysis of ARV costs. These data can be used to support future options in ARV procurement and tender-processing for the department and nationally. It can also serve as a template in the construction of a pathway for the safe and cost-effective switching of ARV regimens of patients already on established regimens when generic ARV medications become available in Ireland.

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1904. Impact of Mail Order Pharmacy Use on Viral Suppression Among HIV-Infected Patients

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Session: 225. Clinical Practice Issues: HIV, Sepsis, QI, Diagnosis
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Background. There are many barriers to adherence to antiretroviral medications, including pharmacy accessibility. Few studies have evaluated the impact of pharmacy distance or use of mail order pharmacy services on HIV viral load suppression relative to use of an "in-person" pharmacy. The purpose of our study was to determine whether there is a difference in viral suppression rates among patients who utilize mail order pharmacy services vs. an in-person pharmacy for filling antiretroviral prescriptions. Our study also looked at the effect of distance and travel time to viral suppression for patients who use in-person pharmacy services.

Methods. This was a single-center, retrospective cohort study of adult HIV-positive patients who received care between 2006 and 2015 at an urban HIV care clinic. We collected patient demographic information, ART regimen, home address, pharmacy address, and laboratory values. For patients who utilized retail pharmacies, patients' home addresses and the location of the pharmacy were geocoded using ESRI's StreetMap Premium geocoding service. We calculated patients' travel distance to pharmacy and travel time to pharmacy along a street network in a private vehicle. Chi-squared tests and logistic regression were used to determine the association between in-person or mail order pharmacy services and distance to pharmacy and viral suppression (viral load ≤ 200 copies/mL).

Results. There were 214 patients in the mail order group and 214 patients included in the in-person pharmacy group. Baseline characteristics were similar between the groups, with the exception of more people who inject drugs in the mail order group (6.1% vs. 1.8%, $P = 0.05$). No difference in viral load suppression was observed between groups (21.7% vs. 20.2%, $P = 0.679$). There was no difference in viral suppression depending on the distance (1.46 miles away in viral suppressed patients vs. 1.36 miles, $P = 0.75$) or travel time to pharmacy (7 minutes vs. 6.6 minutes, $P = 0.75$) for the in-person pharmacy group. Factors found to be significantly associated with suppressed viral loads were older age, white race, and higher CD4 counts.

Conclusion. Viral suppression was not associated with pharmacy type, distance to pharmacy, or travel time to pharmacy.

Disclosures. All authors: No reported disclosures.

1905. Real-World Insights into Quality Improvement across 11 HIV Clinics in the United States

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Background. As people with HIV are living longer, focusing quality improvement (QI) initiatives on health maintenance and comprehensive patient-centered care is essential. This QI study evaluated chart-document performance in selected HIV care practices across the United States.

Methods. Participants were randomly selected from 11 Ryan White-funded HIV clinics in community ($n = 7$), hospital ($n = 3$), and academic ($n = 1$) settings. At baseline, 200 consecutive charts (~20 per clinic) were reviewed for documentation of guideline-directed practices. Clinic teams participated in audit-feedback interventions to develop improvement plans. Three months later, consecutive charts were reviewed according to baseline methods. Chi-square tests were conducted to analyze pre- and post-intervention differences.

Results. Significant improvements were seen in sexually transmitted infection (STI) screening, and patient counseling on sexual risk, pre-exposure prophylaxis (PrEP), and antiretroviral therapy (ART). Documentation of several health maintenance measures improved significantly.

Conclusion. Audit-feedback of QI measures improved performance. This approach can inform future QI initiatives.

Table: HIV Patient Characteristics and Percentages of Charts Documented for Quality Measures

	Baseline (n = 200)	Post-Intervention (n = 120)	P-value
Demographic characteristics ^a			
Median years of age	51	40	<0.001
Median years since HIV diagnosis	18	12	<0.001
% female/male/transgender	24/75/1	16/84/0	0.054
Sexual Health Assessment and HIV Prevention			
STI screening	43	64	<0.001
Counseling on sexual risk	22	48	<0.001
Counseling on PrEP for sexual partners	11	23	0.003
Sexual partners prescribed PrEP	9	15	0.100
Health Maintenance Assessment			
Glucose	78	91	0.003
Transaminases	77	92	0.001
Cardiovascular risk calculation	71	74	0.541
Lipid profile	59	64	0.359
25OH Vitamin D level	16	27	0.021
Bone densitometry for patients >50 years	7	5	0.299
Creatinine clearance	15	58	<0.001
Shared Decision-Making			
Patient counseling on			
ART risks and benefits	53	66	0.056
Understanding ART	33	69	<0.001
Exploring patients' ART concerns	31	46	0.008
Opportunities for patients to ask questions	51	82	<0.001

^aAnalyses for continuous and categorical variables based on Mann-Whitney U test and chi-square test, respectively

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