Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

decrease in respiratory cultures growing *P. aeruginosa* likely reflects these phenomena. A confounding factor is the SARS-CoV-2 pandemic and widespread use of HEMT. Clinic closures and implementation of telemedicine limited in-person patient visits during 2020 and 2021. Despite limited in-person visits, the average number of respiratory cultures per individual at CMKC in 2020 was 3.5, which is consistent with previous years. We were able to obtain frequent surveillance cultures through implementation of a drive-through respiratory specimen collection process. Hence, the decrease in number of iTOB courses cannot be attributed to a decrease in frequency of respiratory cultures, although we cannot assess the impact of school closures and a decrease in social gatherings on new *P. aeruginosa* acquisition or chronic infection. Looking at all these variables, the widespread use of HEMT likely played a significant role in reducing new *P. aeruginosa* acquisition and chronic *P. aeruginosa* infection.

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Dosing and therapeutic drug monitoring of intravenous vancomycin in cystic fibrosis: A practice survey

R. Dagenais[1,2], V. Su[1,2], R. Cen[3]. [1]*Adult Cystic Fibrosis Clinic, St. Paul's Hospital, Vancouver, BC, Canada;* [2]*Pharmacy Department, St. Paul's Hospital, Vancouver, BC, Canada;* [3]*Faculty of Pharmaceutical Sciences, University of British Columbia, Vancouver, BC, Canada*

Background: If a cystic fibrosis (CF) exacerbation warrants intravenous antibiotics, vancomycin is first line for methicillin-resistant *Staphylococcus aureus* infection. Trough-based therapeutic drug monitoring (TDM) of vancomycin has been used historically, but revised consensus guidelines recommend area under the curve to minimum inhibitory concentration ratio (AUC/MIC)-based TDM [1]. The primary objective of this study was to assess pharmacists' vancomycin dosing and TDM practices in people with CF (PwCF). A secondary objective was to evaluate AUC/MIC-based TDM implementation strategies.

Methods: An electronic survey was emailed via the Cystic Fibrosis Foundation Pharmacist listserv to pharmacists affiliated with CF centers on May 4, 2021; the survey closed June 17, 2021.

Results: Of 28 pharmacists who completed the survey, 71% cared for children with CF, and 36% cared for adults with CF (Table 1); 71% used a specific resource, guideline, or nomogram for vancomycin dosing. Sixty-one percent never used a loading dose (LD), 29% used a LD sometimes, and 11% used a LD always. LD ranged from 20 mg/kg to 30 mg/kg in adults and 15 mg/kg to 25 mg/kg in children. Twenty-eight percent used a maximum total daily dose (TDD); 4000 mg was most common. Trough level was used in 75% for inpatients and 79% for outpatients. For adults, 56% targeted 15 mg/L to 20 mg/L and 22% targeted 10 mg/L to 15 mg/L. For children, 33% targeted 15 mg/L to 20 mg/L, and 39% targeted 10 mg/L to 15 mg/L. For three respondents using peak levels, 35 mg/L to 40 mg/L was targeted. AUC/MIC was used in 39% for inpatients and 21% for outpatients. Of the 11 respondents who reported using an AUC/MIC-based TDM strategy, 91% targeted an AUC of 400 mg per h/L to 600 mg per h/L. Pharmacist-led education sessions and protocol implementation facilitated the change to AUC/MIC-based TDM; challenges faced were appropriate level timing and AUC/MIC calculation and staff education. Advantages of AUC/MIC-based TDM included lower vancomycin TDD, less toxicity, and fewer repeat levels needed; no decrease in effectiveness was observed. Common considerations for TDM included local standard of practice (93%), evidence-based recommendations (61%), personal or health care team preference (46%), number of vancomycin levels required (43%), and availability of specific software (32%). Of 17 respondents using trough levels, 41% were planning or considering a change to AUC/MIC-based TDM.

Conclusions: Vancomycin dosing and TDM varies between pharmacists caring for PwCF. Since the practice survey was conducted in 2015 [2], the proportion of respondents using trough-based vancomycin TDM has decreased, and the proportion using AUC/MIC-based TDM has increased. The proportion of respondents targeting troughs of 15 mg/L to 20 mg/L has decreased and the proportion targeting trough of 10 mg/L to 15 mg/L has increased. Advantages of AUC/MIC-based TDM have been observed; adequate staff education and strategies to overcome barriers are necessary to implement this practice.

Table 1.
Respondent and cystic fibrosis center characteristics (N = 28 respondents)

Characteristic	n (%)
Country of practice	
– Canada	12 (43)
– United States	16 (57)
Years providing care for pwCF	
– <3 years	5 (18)
– 3-5 years	6 (21)
– 6-10 years	7 (25)
– >10 years	10 (36)
Age group(s) of pwCF provide cared for	
– Only adults	8 (29)
– Only pediatrics	18 (64)
– Both adults and pediatrics	2 (7)
Number of adult patients with CF cared for[a]	
– 0-50	4 (40)
– 51-100	3 (30)
– >100	3 (30)
Number of pediatric patients with CF cared for[b]	
– 0-50	1 (5)
– 51-100	4 (20)
– 101-200	9 (45)
– 201-300	2 (10)
– >300	4 (20)

pwCF, people with CF
[a]Based on n=10 respondents caring for adult patients
[b]Based on n=20 respondents caring for pediatric patients

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Evaluation of the Medication Electronic Monitoring Systems n adherence measurement in a real-world setting

S. Sutton[1,2], J. Hayden[2], M. Howlett[1,2], J. Davies[3,4,5], A. Fleming[6], B. Elnazir[7,8], M. Williamson[9], E. McKone[10,11], D. Cox[9,11], B. Linnane[12,13], A. Quittner[14], P. McNally[15,16]. [1]*Pharmacy, Children's Health Ireland at Crumlin, Dublin, Ireland;* [2]*Pharmacy, Royal College of Surgeons Ireland, Dublin, Ireland;* [3]*Department of Paediatric Respiratory Medicine, Royal Brompton Hospital, Guys and St. Thomas's NHS Foundation Trust;* [4]*National Heart and Lung Institute, Imperial College, London, UK;* [5]*European Cystic Fibrosis Society, Lung Clearance Index Core Facility, London, UK;* [6]*Royal College of Surgeons Ireland, Dublin, Ireland;* [7]*Paediatric Respiratory Medicine, Children's Health Ireland, Dublin, Ireland;* [8]*School of Medicine, Trinity College, Dublin, Ireland;* [9]*Respiratory, Children's Health Ireland, Dublin;* [10]*Respiratory, St Vincent's University Hospital, Dublin, Ireland;* [11]*School of Medicine, University College Dublin, Ireland;* [12]*School of Medicine, University of Limerick, Limerick, Ireland;* [13]*Paediatric Respiratory, University Hospital Limerick, Limerick, Ireland;* [14]*Behavioral Health Systems Research, Miami, FL;* [15]*Research and Innovation, Children's Health Ireland, Dublin;* [16]*School of Medicine, Royal College of Surgeons Ireland, Dublin, Ireland*

Background: RECOVER is an ongoing multisite (n = 8) postmarketing study of clinical outcomes in people with cystic fibrosis (CF) prescribed elexacaftor/tezacaftor/ivacaftor (ELX/TEZ/IVA) in Ireland and the United