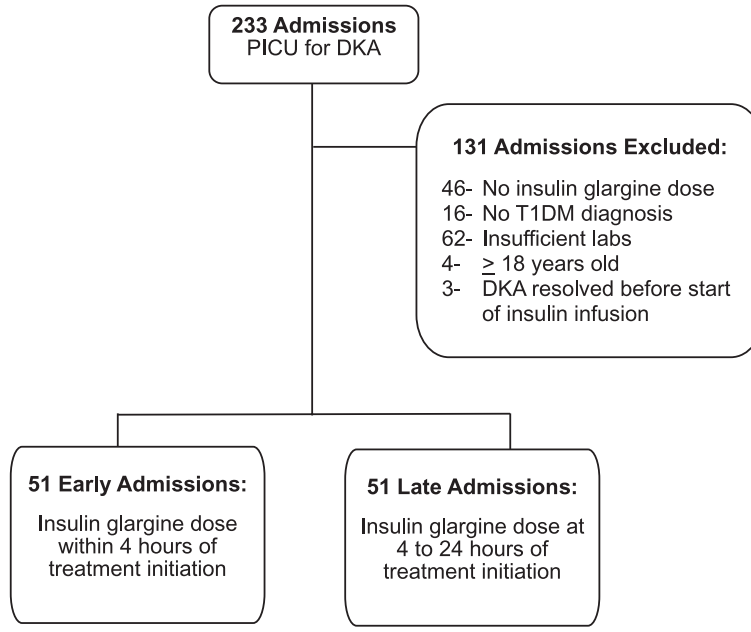


**Supplemental Figure. Patient selection based on exclusion criteria.**



*DKA, diabetic ketoacidosis; PICU, pediatric intensive care unit; T1DM, type 1 diabetes mellitus.*

During the 7-year study period, there were a total of 233 admissions to the PICU for DKA. As a result of exclusion criteria, the final analysis included 51 admissions in the late administration group and 51 admissions in the early administration group

**Supplemental Table 1. Classification of Antiseizure Medications Affecting Cytochrome P-450 Isozymes That Metabolize Lacosamide**

Isozyme	Inducer					Inhibitor				
	Strong	Moderate	Weak	Neutral	None	Strong	Moderate	Weak	Neutral	
CYP2C9	Phenytoin	None	Carbamazepine Phenobarbital Primidone	Acetazolamide Brivaracetam Diazepam	None	None	Eslicarbazepine Stiripentol	Valproic acid	Acetazolamide Brivaracetam Carbamazepine	
CYP2C19	Phenytoin	Carbamazepine	None	Ethosuximide Ezogabine Gabapentin Lamotrigine Levetiracetam Lorazepam	Cannabidiol	Eslicarbazepine Felbamate Stiripentol	Oxcarbazepine Topiramate Valproate	Clonazepam Clorazepate Diazepam Ethosuximide		
CYP3A4	Carbamazepine Phenobarbital Phenytoin Primidone Stiripentol	None	Clonazepam Clonazepam Clorazepate Eslicarbazepine Felbamate Oxcarbazepine Rufinamide Topiramate	Methsuximide Nitrazepam Perampanel Pregabalin Valproate Vigabatrin Zolpidem Zonisamide	Cannabidiol	Stiripentol	Valproate	Ezogabine Gabapentin Lamotrigine Levetiracetam Lorazepam Methsuximide Nitrazepam Perampanel Phenobarbital Phenytoin Pregabalin Rufinamide Vigabatrin Zolpidem		

Created using information at National Institutes of Health, US National Library of Medicine database. Accessed June 19, 2021. <https://dailymed.nlm.nih.gov/dailymed/>.

**Supplemental Table 2.** Characteristics of 646 Serum Samples in 380 Patients

Variables	Results
Age, median (IQR), yr	9.35 (5.19–13.94)
Age brackets, n (%), yr	
1 mo to <2	73 (11.3)
≥2 to 6	125 (19.3)
≥6 to 12	219 (33.9)
≤12 to ≤ 18	229 (35.5)
Weight, median (IQR), kg	31.4 (18.2–52.0)
FDA dosing weights, n (%), kg	
< 6	16 (2.5)
≥ 6–11	39 (6.0)
≥11–30	245 (37.9)
≥ 30–50	175 (27.1)
≥ 50	171 (26.5)
Male, n (%)	351 (54.3)
Race, n (%)	
White	362 (56.0)
Black	214 (33.1)
Native American	3 (0.5)
Asian	7 (1.1)
Unknown	60 (9.3)
Lacosamide dose, median (IQR), mg/kg/day	8.36 (5.92–11.16)
Lacosamide SDC, median (IQR), mg/L*	7.1 (4.5–10.1)
DCR, median (IQR), L/kg/hr	0.053 (0.036–0.083)
No. adjunctive ASM, median (IQR)	3 (2–3)

ASM, antiseizure medication; DCR, dose to serum concentration ratio; SDC, serum drug concentration

\*Reference range 2–12 mg/L.

**Supplemental Table 3. Summary of Sera Containing ASMs**

ASM	Total	Polytherapy With LCM	
		With 1 ASM*	> 1 ASM†
Acetazolamide	3	0	3
Brivaracetam	3	0	3
Cannabidiol	9	0	9
Carbamazepine	3	2	1
Clobazam	158	26	132
Clonazepam	40	6	34
Clorazepate	3	0	3
Corticotropin	1	0	1
Diazepam	17	2	15
Eslicarbazepine	3	1	2
Ethosuximide	2	0	2
Ezogabine	0	0	2
Felbamate	24	1	23
Gabapentin	9	1	8
Lacosamide	646	98‡	548
Lamotrigine	44	11	33
Levetiracetam	238	67	171
Lorazepam	16	1	15
Methsuximide	1	0	1
Midazolam	4	1	8
Nitrazepam	3	0	3
Oxcarbazepine	50	17	33
Perampanel	35	3	32
Phenobarbital	67	1	66
Phenytoin	6	1	5
Piracetam	1	0	1
Pregabalin	8	2	6
Rufinamide	14	4	10
Topiramate	75	21	54
Valproate	86	26	50
Vigabatrin	36	3	33
Zonisamide	100	28	72

ASM, antiseizure medication; LCM, lacosamide

\* Only ASM given in conjunction with LCM.

† Regimen contains LCM and specific ASM noted. May also contain other ASM.

‡ Lacosamide as monotherapy.