Table 1. Baseline Characteristics

	No dexamethasone (n=62)	Dexamethasone (n=64)
Age, median (range)	53 (24-87)	56.5 (23-84)
Female, n (%)	29 (46.8)	26 (40.6)
Ethnicity, n (%)		
Black	4 (6.5)	6 (9)
White, non-Hispanic	1 (1.6)	1 (1.6)
Hispanic/Latinx	55 (89)	49 (76.6)
Other	2 (3.2)	8 (12.5)
BMI, mean (range)	31 (18.3 - 57)	32.2 (16.0 - 65.6)
Prior diagnosis of DM, n (%)	26 (42)	35 (55)
HgbA1C, mean% (STD, n)	9.3% (2.9%, n=29)	8.9% (2.6%, n=36)
Highest required O_2 Supplementation		
Low flow, n (%)	27 (43.5)	22 (34.4)
High flow nasal canula, n (%)	17 (27.4)	29 (45.3)
Mechanical ventilation, n (%)	18 (29.0)	13 (20.3)
Duration of hospitalization, median (IQR)	8 (5-13)	8 (5.5-13)
Days on dexamethasone, median (IQR)	0	7.5 (4.5-10)

Table 2. Results

	No dexamethasone (n=62)	Dexamethasone (n=64)	P value
10-day average blood glucose, median (IQR)	117 mg/dL (105-176.6)	175 mg/dL (122.2-249)	<0.005*
10-day average BG *with diabetes*, median (IQR)	176.3 mg/dL (138.6-209.7)	234.4 mg/dL (208-273.8)	<0.005*
10-day average BG *without diabetes*, median (IQR)	106.9 mg/dL (96-113.6)	118.8 mg/dL (111.1-143.6)	<0.005*
Correctional Insulin			
Number of days with ≥1 correctional dose per days hospitalized or on dexamethasone			
No Diabetes	8 doses/223 days (CI: 0.02/day - 0.07/day)	18 doses/197 days on dexamethasone (CI: 0.05/day - 0.1/day)	0.0363**
Diabetes	111 doses/227 days (CI: 0.4/day - 0.6/day)	197 doses/266 days on dexamethasone (CI: 0.6/day - 0.9/day)	<0.001**
Number correctional doses per days on dexamethasone			
No Diabetes	0.1 doses per day (CI: 0.09/day - 0.2/day)	0.3 doses per day (CI: 0.3/day - 0.4/day)	<0.001**
Diabetes	1.7 doses per day (CI: 1.5/day - 1.9/day)	2.6 doses per day 0.2 (CI: 2.4/day - 2.8/day)	<0.001**
Infectious Complications			
No Diabetes	3 of 34	2 of 29	1***
Diabetes	5 of 28	5 of 35	0.74***

*Wilcoxon rank sum test, significance level 0.005
**Poisson Means Test
***Fischer exact test

Conclusion. NIH COVID-19 guidelines recommend administering dexamethasone only if the patient is in a monitored setting. Our data support the NIH concerns that outpatients with diabetes receiving steroids are at risk for hyperglycemic complications. However, contrary to the NIH guidelines, our data suggest that patients without diabetes receiving steroids are at low risk for complications due to hyperglycemia and a majority do not require monitoring.

Disclosures. **Eric Daar, MD**, **Gilead** (Consultant)**Gilead** (Research Grant or Support)**Merck** (Research Grant or Support)**Merck** (Consultant)**ViiV** (Research Grant or Support)

281. Prevalence of Influenza Co-infection in a Real-world Cohort of COVID-19 Patients in the U.S.

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Session: P-14. COVID-19 Complications, Co-infections, and Clinical Outcomes

Background. Over 29 million people have been infected with COVID-19 in the U.S. alone. While COVID-19 carries serious morbidity and mortality, potential for co-infection with other respiratory infections remains unclear. We aimed to: (1) estimate co-infection prevalence of COVID-19 and influenza, and (2) compare demographics and clinical outcomes of co-infected patients to those of COVID-19 singly-infected patients using U.S. electronic health records (EHR).

Methods. Patients in the Optum De-identified COVID-19 EHR database diagnosed with COVID-19 (lab-confirmed or ICD code) between February 2020 and January 2021 were eligible. Influenza co-infection was defined as an influenza diagnosis (lab-confirmed or ICD code) within ±10 days of COVID-19 diagnosis. We report co-infection prevalence for all COVID-19 patients and for a subset of hospitalized COVID-19 patients.

Results. Among all COVID-19 patients (N = 549,532), 1,794 (0.3%) were co-infected with influenza. Among the hospitalized subset (N = 80,192), 242 (0.3%) were co-infected with influenza. In sensitivity analyses restricting to lab-confirmed influenza, co-infection prevalence was 0.1% overall and 0.2% among hospitalized patients. No meaningful differences were observed in baseline demographics between co-infected and singly-infected patients. Among hospitalized patients, univariate analysis suggested higher likelihood of invasive ventilation (12.8% vs. 9.8%; p=0.14), respiratory failure (56.2% vs. 46.6%, p< 0.01), and ICU stay (27.3% vs. 23.1%, p=0.13), but no meaningful difference in mortality (13.3% vs. 13.0%, p=0.97), for co-infected as compared to singly-infected COVID-19 patients.

Table 1. Prevalence of influenza co-infection among COVID-19 patients, overall and hospitalized

		Total COVID-19 cohort	Co-infected with influenza
Original analysis[1]	Overall	549,532	1,794 (0.3%)
	Hospitalized	80,192	242 (0.3%)
Sensitivity analysis[2]	Overall	549,532	809 (0.1%)
	Hospitalized	80,192	124 (0.2%)

[1]Original analysis using ICD codes or positive diagnosis test to define influenza cases
[2]Sensitivity analysis using only positive diagnostic test to define influenza cases

Conclusion. In a real-world cohort, we observed a low proportion (0.3%) of COVID-19 patients co-infected with influenza. Co-infected patients had similar baseline characteristics but higher likelihood of hospitalization severity as compared to singly-infected COVID-19 patients. Limitations include low prevalence of circulating influenza and potential missing data bias.

Disclosures. **Devika Chawla, PhD MSPH**, **F. Hoffmann-La Roche Ltd.** (Shareholder)**Genentech, Inc.** (Employee) **Xin Chen, PhD**, **F. Hoffmann-La Roche Ltd.** (Shareholder)**Genentech, Inc.** (Employee) **Klaus Kuhlbusch, PhD MD**, **F. Hoffmann-La Roche Ltd.** (Employee) **Kelly Zalocusky, PhD**, **F. Hoffmann-La Roche Ltd.** (Shareholder)**Genentech, Inc.** (Employee) **Shemra Rizzo, PhD**, **F. Hoffmann-La Roche Ltd.** (Shareholder)**Genentech, Inc.** (Employee)

282. Risk Factors for Mortality in Severe COVID-19 Patients Admitted to the Intensive Care Unit: A Retrospective Single-Center Study in Saudi Arabia

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Session: P-14. COVID-19 Complications, Co-infections, and Clinical Outcomes

Background. The first case of COVID-19 in the Kingdom of Saudi Arabia (KSA) was reported in March 2020. This study aims to describe the overall mortality in the ICU during the COVID-19 pandemic and to determine independent risk factors for overall survival & 29 days mortality.

Methods. This is a retrospective single-center study; data for adult patients admitted to the ICU with COVID-19 between 1st March 2020 to 31st December 2020 were extracted and reviewed. Overall survival was described using Kaplan-Meier curves with reporting of median overall survival and 29 days survival estimates. Multivariate