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# Journal Pre-proof

Response to “Patient preference for cellulitis treatment: at-home care is preferred to hospital-based treatment”

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33

34 *To the Editor:* We read with interest the recent survey study from Gabel *et al*<sup>1</sup> highlighting the  
35 preference of patients for at-home treatment of cellulitis rather than hospital-based care.  
36 Notably, these results reflected patient preferences *well before* the onset of the COVID-19  
37 pandemic. In light of recent reports linking patient anxiety over COVID-19 to delayed and  
38 decreased hospital presentations for acute medical problems such as myocardial infarction<sup>2</sup> and  
39 stroke<sup>3</sup>, we examined whether a similar trend was observed for patients presenting with skin and  
40 soft tissue infections (SSTIs) at an urban tertiary care center in the epicenter of the COVID-19  
41 pandemic.

42 After obtaining IRB approval, we queried emergency department (ED) visits at NYU Langone  
43 Health Tisch Hospital (NYULH Tisch) for International Classification of Disease (ICD)  
44 diagnosis codes corresponding to SSTIs (Supplementary Table 1). We compared data from  
45 March 1, 2020 – May 1, 2020 (corresponding to the peak of the COVID-19 pandemic in New  
46 York City) to the same time-period in 2019. Additionally, we reviewed inpatient dermatology  
47 consults from these timeframes.

48 While there was little difference in hospital census between 2019 and 2020, NYULH Tisch  
49 briefly transformed into a “COVID-19 Hospital,” ultimately caring for over 2,900 COVID-19  
50 patients from 3/1/2020 to 5/1/2020. During this time-period, there was a 39.7% reduction in the  
51 number of patients who presented to the ED with SSTIs: 223/6262 (3.6%) in 2020 compared to  
52 370/7155 (5.2%) in 2019 ( $p < 0.001$ , chi-square test, 95% CI [-0.02, -0.009]).

53 With regards to the inpatient dermatology service, a noticeable decrease in consults was  
54 observed during the height of the pandemic with 75 consults requested in 2020 compared to 127  
55 in 2019. Notably, the proportion of consults seen for SSTIs also decreased, constituting 5% of  
56 consults during the pandemic compared to 17% in 2019 ( $p = 0.10$ , Fisher’s exact test, OR 95% CI  
57 [.83, 11.2]). By contrast, the proportion of consults seen for another common inpatient

58 dermatologic complaint, cutaneous drug eruptions, did not change: 14% in 2020 compared to  
59 15% in 2019 ( $p=0.77$ , Fisher's exact test, OR 95% CI [0.35, 5.75]). These trends remained when  
60 consults in SARS-CoV-2 positive patients were excluded from analysis (7% vs. 19% for SSTIs  
61 [ $p=0.03$ , Fisher's exact test, OR 95% CI (1.11-14.60)] and 16% vs. 17% for drug eruptions  
62 [ $p=0.58$ , Fisher's exact test, OR 95% CI (0.47-7.51)] in 2020 and 2019, respectively).

63 Our findings highlight a similar pattern observed by our cardiology<sup>2</sup> and neurology<sup>3</sup> colleagues –  
64 namely, that fewer patients sought hospital-based care for acute dermatologic problems like  
65 SSTIs during the height of the COVID-19 pandemic. These results suggest that some patients  
66 with SSTIs may have avoided hospital-based evaluation and treatment due to fear of COVID-19.  
67 While we can neither comment on whether these patients sought evaluation elsewhere (such as in  
68 an outpatient or telemedicine setting) nor on the outcomes of patients who may have foregone  
69 hospital evaluation for SSTIs, the findings of Gabel *et al*<sup>1</sup> have proven prescient. Thus, we argue  
70 for careful risk stratification of patients diagnosed with cellulitis in outpatient, urgent care and  
71 ED settings going forward. In the context of growing outbreaks in other states and concern for  
72 heightened incidence of COVID-19 in the fall, we encourage outpatient treatment of cellulitis –  
73 including parenteral antimicrobial therapy when feasible – for those patients without relevant  
74 risk factors for poor outcomes. Moreover, given that patients may be reluctant to seek hospital-  
75 based care, we highlight the need to remain accessible to patients in the outpatient setting or  
76 through virtual visits, particularly during periods of stress on local hospital systems.

77

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**Supplemental Table 1. ICD Inclusion Codes**

<b>Diagnosis</b>	<b>ICD-10</b>			
Skin & Soft Tissue Infections	L02.1	L02.413	L03.3	L08
	L02.219	L02.423	L03.8	L08.8
	L02.225	L02.439	L03.9	L08.9
	L02.231	L02.5	L03.0	L08.89
	L02.411	L02.53	L03.1	