

Barriers to optimal prescribing of antivirals to urgent care patients with mild-to-moderate COVID-19 in the United States

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INTRODUCTION

- Despite the availability of effective antiviral therapies, many high-risk patients with mild-to-moderate COVID-19 remain undertreated.^{1,2}
- Limited evidence exists on how urgent care healthcare providers (HCPs) make antiviral prescribing decisions for eligible patients.
- This study examined how patient characteristics influence antiviral prescribing decisions among HCPs managing patients with COVID-19 in the urgent care setting.

SUMMARY

- Urgent care HCPs reported most often prescribing antivirals to patients with COVID-19 to prevent disease progression.
- Despite strong evidence that various underlying conditions can individually increase a patient's risk of hospitalization or death from COVID-19, patient-reported symptom severity exerts a greater influence on HCP prescribing decisions than individual underlying conditions.
- Efforts are needed to support urgent care HCPs in antiviral prescribing decisions and DDI management to improve health outcomes among high-risk antiviral-eligible patients.

METHOD

- From July to September 2025, US-based HCPs who work in urgent care completed an online survey that included a discrete choice experiment (DCE).
- In the DCE, HCPs were presented with 14 choice tasks (Table 1) where they were asked to select which of two hypothetical outpatient profiles they would be more likely to prescribe an antiviral for COVID-19 (with the option to select neither).
- Patient profiles were characterized by the following attributes: age, patient-reported COVID-19 symptom severity, underlying conditions (separately assessed as the presence/absence of immunocompromise, chronic lung disease, cardiovascular condition, obesity and/or diabetes, and chronic kidney disease), presence of drug–drug interactions (DDIs), and patient request for antivirals.
- The influence of these attributes on prescribing decisions was assessed by calculating relative attribute importance (RAI), defined as the maximum utility difference for an attribute (difference between best and worst level of the attribute) divided by the sum of maximum utility differences across all attributes.
- RAI values sum to 100%, with a higher value indicating greater influence on prescribing decisions.
- Pearl IRB (Indianapolis, Indiana, USA) granted institutional review board exemption on 13 June 2025 (ID 2025-0311).

Table 1. Example discrete choice experiment task

Outpatient COVID-19 Patient A	Outpatient COVID-19 Patient B	
Age ≥ 65 years	Age 50-64 years	I would not prescribe an antiviral to either patient
Patient reports mild COVID-19 symptoms (not to be confused with a clinical assessment of COVID-19 severity)	Patient reports severe COVID-19 symptoms (not to be confused with a clinical assessment of COVID-19 severity)	
Has chronic lung disease	Does not have chronic lung disease	
Has a cardiovascular condition	Does not have cardiovascular condition	
Is immunocompromised	Is not immunocompromised	
Does not have obesity or diabetes	Has obesity, does not have diabetes	
Has chronic kidney disease	Does not have chronic kidney disease	
On medication that requires interruption during the antiviral treatment period	No medication interaction concerns	
Requests antiviral therapy	Does not request or inquire about antiviral therapy	

All hypothetical profiles were outpatients with mild-to-moderate COVID-19 disease. Healthcare providers were asked: "Assuming all other factors are equal, to which of the following outpatients, would you more likely prescribe an antiviral? (Please note that, while you may choose to prescribe an antiviral for both patients, we are interested in knowing which patient you would be more likely to prescribe an antiviral to)."

RESULTS

- 201 HCPs practicing in an urgent care setting participated in the study. Among participants, 59.7% were female, 39.8% were male, and one HCP (0.5%) preferred not to disclose their gender. Further HCP demographics are shown in Figure 1.

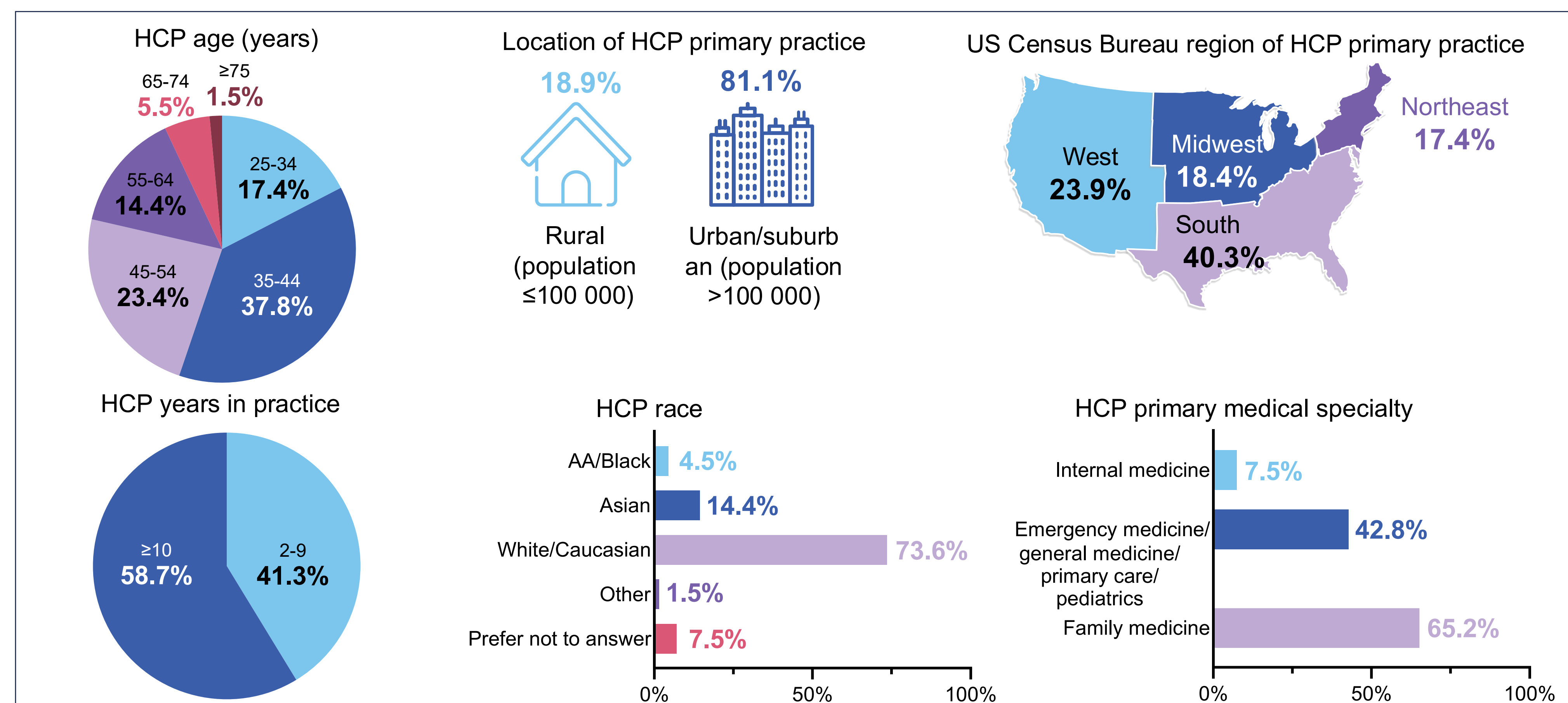


Figure 1. Participant demographics. For the categories race and primary specialty, HCPs were invited to select all applicable response options. For specialty, only the most frequently reported are shown. For race, one HCP (0.5%) each reported being American Indian/Alaska Native or Native Hawaiian/Other Pacific Islander. Abbreviations: AA, African American; HCP, healthcare provider.

- HCPs reported seeing a median of 200 (interquartile range (IQR) 100–300; range 25–999) outpatients with COVID-19 over the previous 12 months, recommending antivirals to a median of 60% (IQR 35%–90%; range 0%–100%) of these patients, and prescribing them to a median of 40% (IQR 15%–65%; range 0%–100%).
- The most frequently reported goals of antiviral prescribing were to prevent disease progression, including hospitalization or death (90.5%), and to decrease symptom severity/duration (53.2%) (Table 2).
- The attribute with the highest RAI was patient-reported symptom severity (RAI: 20.0%), followed by a patient being immunocompromised (RAI: 14.7%), and patient age (RAI: 13.1%) (Figure 2).
- In the initial choice tasks between two outpatient profiles, no antiviral was prescribed in 8.8% of tasks. When antiviral prescribing was chosen for one profile, 21.4% indicated in a follow-up question that they would choose not to prescribe an antiviral for the other profile.

Table 2. Antiviral prescribing

Priorities/goals in deciding whether to prescribe antivirals*	N	%
Prevent disease progression/hospitalization or death	182	90.5
Decrease symptom severity/duration	107	53.2
Decrease incidence of long COVID-19	30	14.9
Decrease risk of transmitting COVID-19 to others	19	9.5
Cost-effectiveness for the health system	9	4.5
Allow patient to get back to work	6	3.0
Other	4	2.0

* Healthcare providers (HCPs) were asked to consider the last outpatient with COVID-19 to whom they had prescribed an antiviral and to select up to two goals/priorities when deciding whether to prescribe an antiviral for that patient.

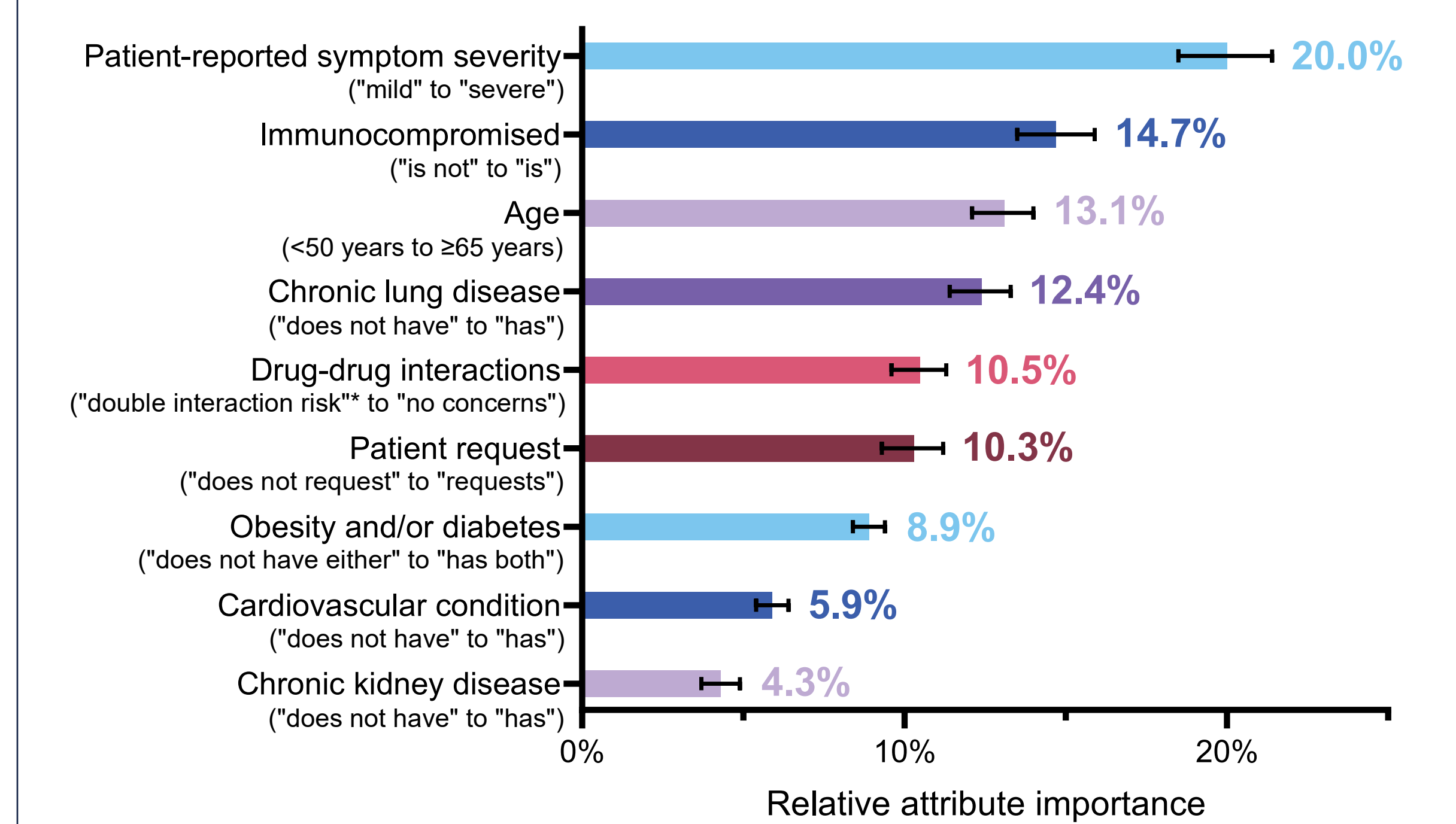


Figure 2. Relative importance of patient attributes for healthcare provider antiviral prescribing decisions. Error bars show 95% confidence intervals. Mean values sum up to 100%. *On medication that should be interrupted, and on medication requiring dose adjustment and monitoring during antiviral treatment

DISCUSSION & CONCLUSION

- Urgent care HCPs identified prevention of progression to severe COVID-19, including hospitalization and death, as the primary motivator of their real-world antiviral prescribing decisions.
- Patient-reported symptom severity appeared to be the most important driver of prescribing decisions, despite treatment guidelines recommending that patient risk factors for severe COVID-19 outcomes should be central to antiviral prescribing.³
- These findings suggest that efforts to increase awareness of COVID-19 treatment guidelines and antiviral eligibility criteria may be helpful to urgent care HCPs.
- The presence of potential DDIs was influential to antiviral prescribing decisions, despite most DDIs being clinically manageable in practice.
- Efforts are needed to reduce barriers to antiviral prescribing, reinforce the importance of considering risk factors for severe COVID-19 disease in treatment decisions, and increase familiarity with available DDI management tools to ensure that more eligible patients receive timely antiviral therapy.

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