

To obtain a real-time status of pharmacy resources during the current COVID-19 pandemic, ASHP is surveying members of the Section of Pharmacy Practice Leaders on a biweekly basis. The surveys are designed to assess the status of pharmacy resources, including personal protective equipment (PPE) and critical drug supplies. The surveys are informal and nonscientific and are not designed for statistical analysis. Questions about other impacted pharmacy resources are added as trends develop.

The following includes results from the fifth biweekly survey (Round 5), which included 252 respondents and contained 14 questions that were fielded for three days. When applicable, the data are compared to the first biweekly survey (Round 1) which was deployed from March 9-15, 2020 and had 403 responses, the second biweekly survey (Round 2) which was deployed from March 23-26, 2020 and had 382 respondents, the third biweekly survey (Round 3) which was deployed from April 6-9, 2020 and had 304 respondents, and the fourth biweekly survey (Round 4) which was deployed from April 21-24, 2020 and had 258 respondents.

KEY FINDINGS

- The number of respondents reporting a surge in COVID-19 ICU patients (defined as an ICU census comprised of at least half COVID-19 patients) declined further from Round 3 and Round 4.
 - 43% in Round 3
 - 40% in Round 4
 - 33% in Round 5
- Inventories of critical care drugs have improved since Round 3 and Round 4.
 - Neuromuscular blockers (cisatracurium, atracurium, and vecuronium) continue to be the most frequent drugs in short supply.
 - 49% of respondents report excess supplies of hydroxychloroquine that they anticipate returning to wholesalers.
- Among Round 5 respondents whose organizations perform sterile compounding activities:
 - 51% are reusing masks for sterile compounding, down from 58% in Round 2.
 - 5% are using an alternative type of mask for sterile compounding (e.g., non-shedding fabric), similar to Round 2 (6%).
 - Sterile alcohol (7%), sterile gloves (4%), and sterile sleeves (4%) were the most common cleanroom supplies unavailable from wholesalers.
- 41% of Round 5 respondents expect to receive a supply of remdesivir, 35% did not expect to receive a supply, and 24% were unsure.
 - Among respondents expecting to receive a supply of remdesivir, 85% will use criteria in addition to the Emergency Use Authorization criteria to determine which patients will receive remdesivir.

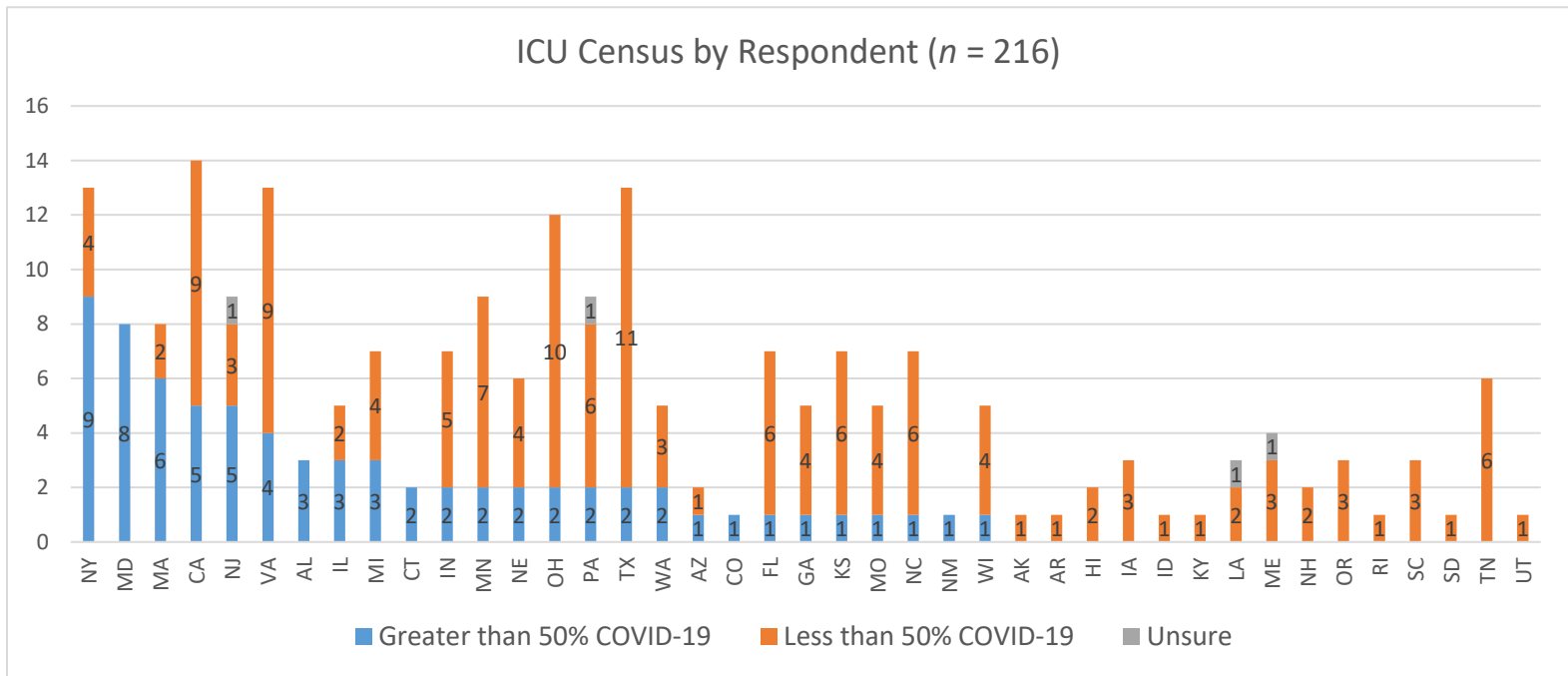
ROUND 5 PARTICIPANTS

- There were 252 respondents representing hospitals of various sizes:
 - Small hospitals (< 200 beds): 25.1%
 - Medium hospitals (200-500 beds): 32.3%
 - Large hospitals (> 500 beds): 39.6%
 - Other (not a hospital setting): 3%
- The highest number of Round 5 respondents were from Texas (17), California (15), and New York (15).

ROUND 5 RESULTS

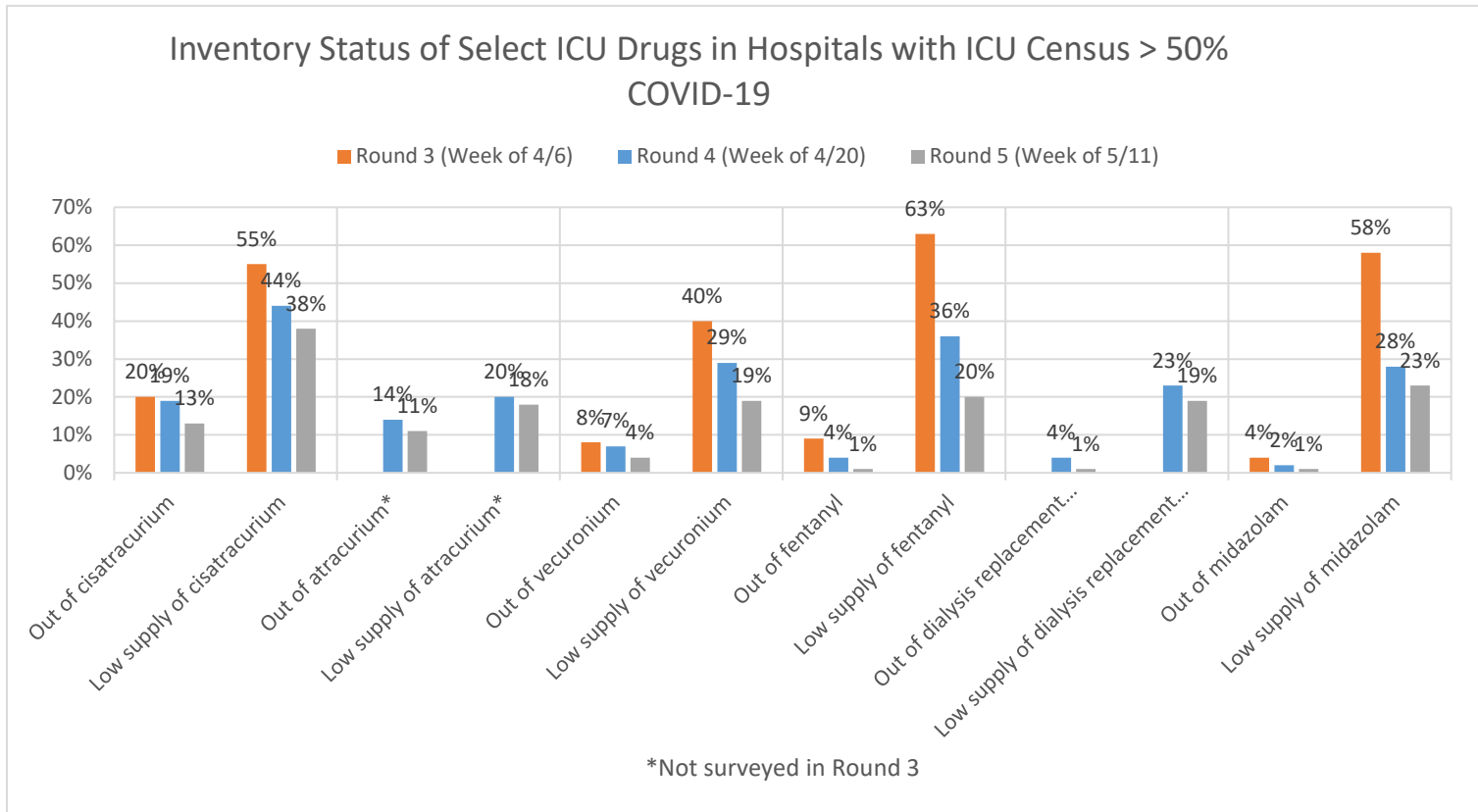
ICU Census

- Of the 216 respondents with an ICU, 33% indicated greater than half of their ICU census consisted of COVID-19 patients (down from 43% in Round 3 and 40% in Round 4), 65% indicated less than half of their ICU was COVID-19 patients (up from 55% in Round 3 and 58% in Round 4), and 2% were unsure (no change from Round 3 or Round 4).

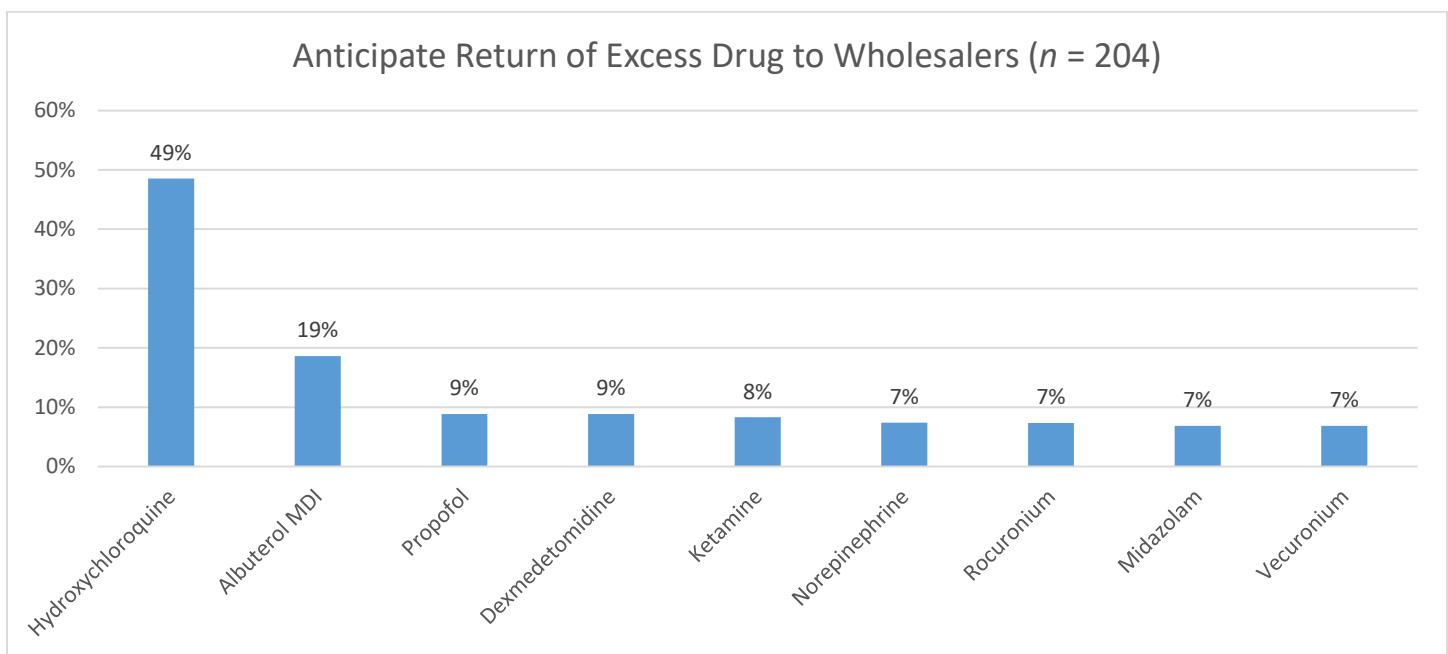


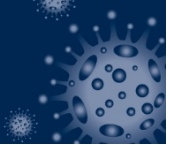
Hospital Medication Inventories

- Among respondents with an ICU at least half full of COVID-19 patients, the ICU drugs with the most critical current inventory status were:
 - Cisatracurium (13% with < 1 day supply, 38% with < 7 day supply)
 - Atracurium (11% with < 1 day supply, 18% with < 7 day supply)
 - Vecuronium (4% with < 1 day supply, 19% with < 7 day supply)
 - Fentanyl (1% with < 1 day supply, 20% with < 7 day supply)
 - Dialysis replacement solutions (1% with < 1 day supply, 19% with < 7 day supply)
 - Midazolam (1% with < 1 day supply, 23% with < 7 day supply)
- Inventory supplies improved consecutively from Round 3, Round 4, and Round 5 for all drugs that were included in each survey.



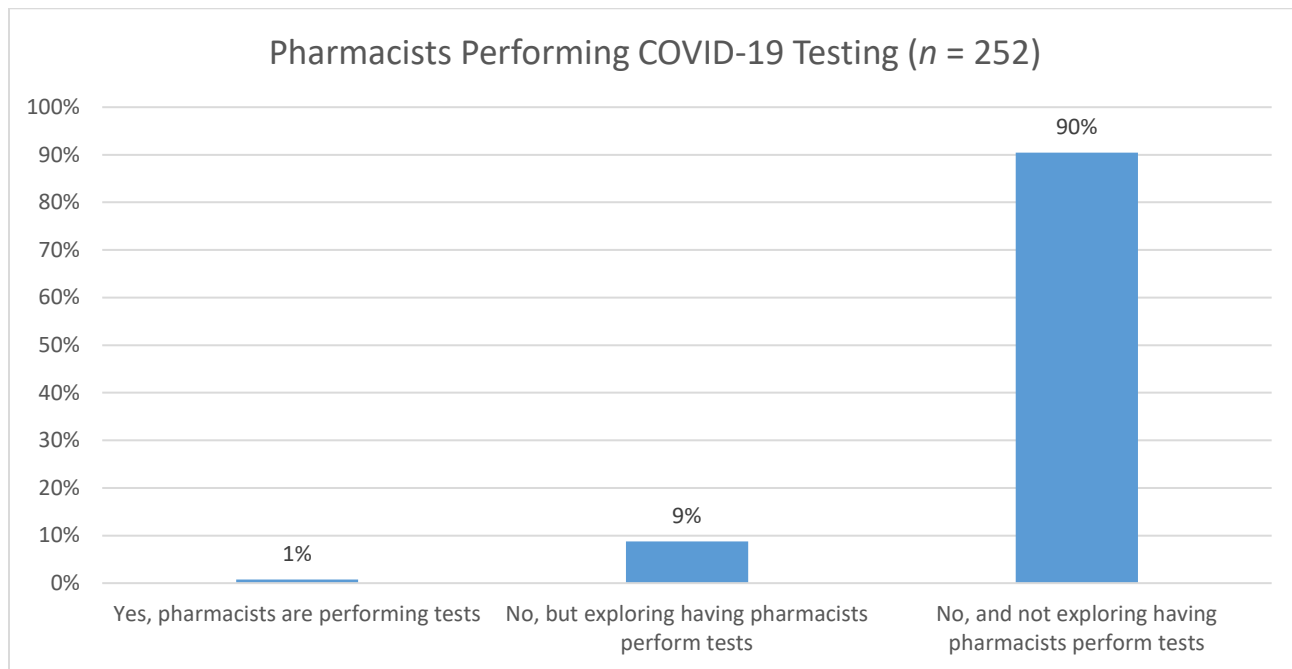
- 204 survey respondents indicated they anticipate returning excess inventory of some drugs to wholesalers. The most common agents were hydroxychloroquine (49%) and albuterol MDI (19%).
 - Anticipated returns correlate with declining COVID-19 ICU census numbers.





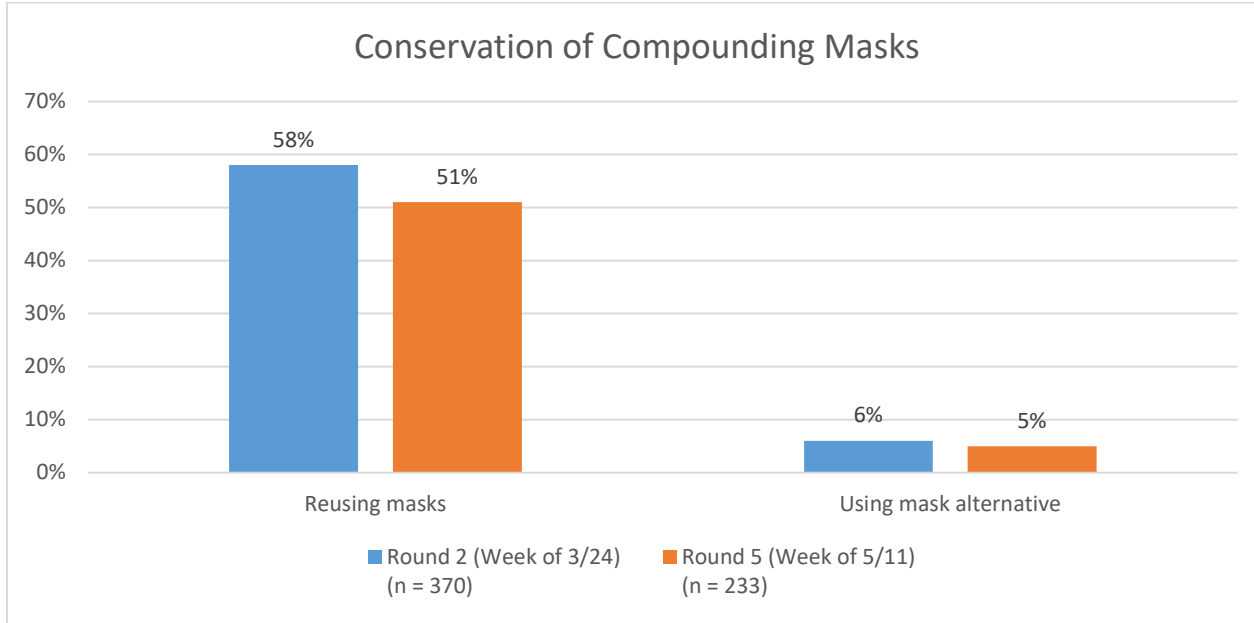
COVID-19 Testing

- Only 1% of respondents indicated that pharmacists at their location are performing COVID-19 testing. An additional 9% are exploring having pharmacists perform tests.
 - The primary work location for the majority of respondents is an inpatient hospital setting. These results may not represent COVID-19 testing practices in ambulatory care or community pharmacy settings.
 - The capability and capacity of COVID-19 testing in hospital settings is an interprofessional effort and primary responsibility may be coordinated with the facility's laboratory services.

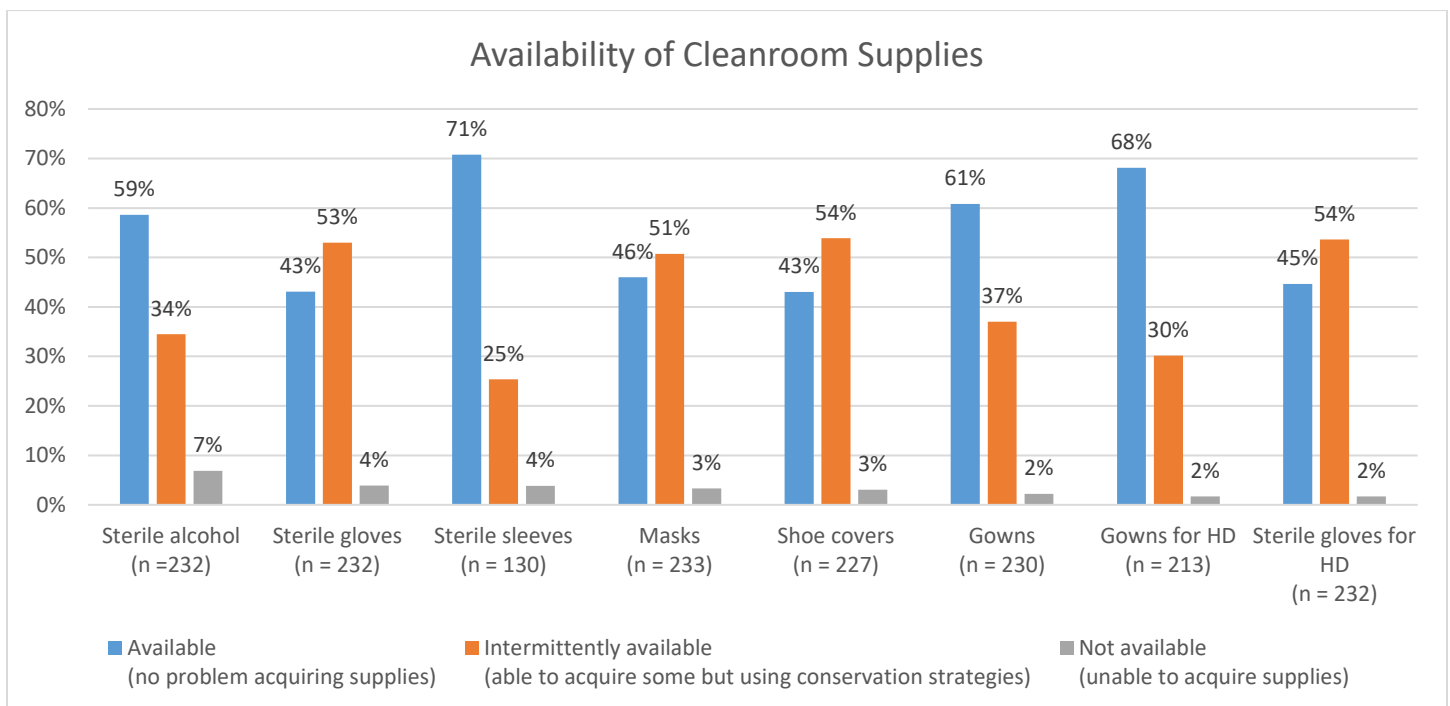


Sterile Compounding Supplies

- Over half of pharmacies that perform sterile compounding activities continue to report conservation strategies for masks.
 - 51% are reusing masks
 - 5% are using an alternative non-shedding fabric mask



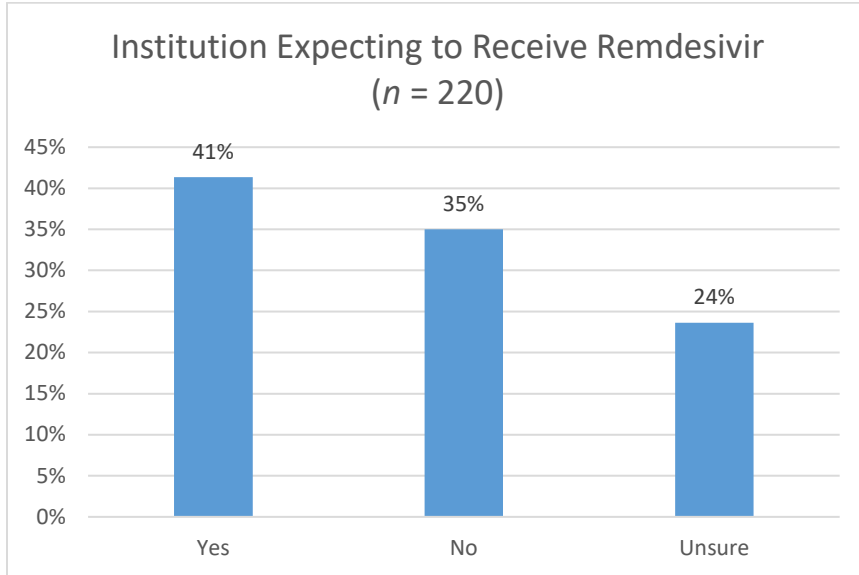
- Respondents indicated challenges acquiring other cleanroom supplies.
 - Sterile alcohol (7%), sterile gloves (4%), and sterile sleeves (4%) were the most common items not available.
 - Sterile gloves for hazardous drug (HD) preparation (54%), shoe covers (54%), and sterile gloves (53%) were the most common items with intermittent availability.
 - The United States Pharmacopeia Compounding Expert Committee updated the [Operational Considerations for Sterile Compounding during the COVID-19 Pandemic](#) document on May 18, 2020.
 - The document includes strategies for managing the sterile isopropyl alcohol shortage.



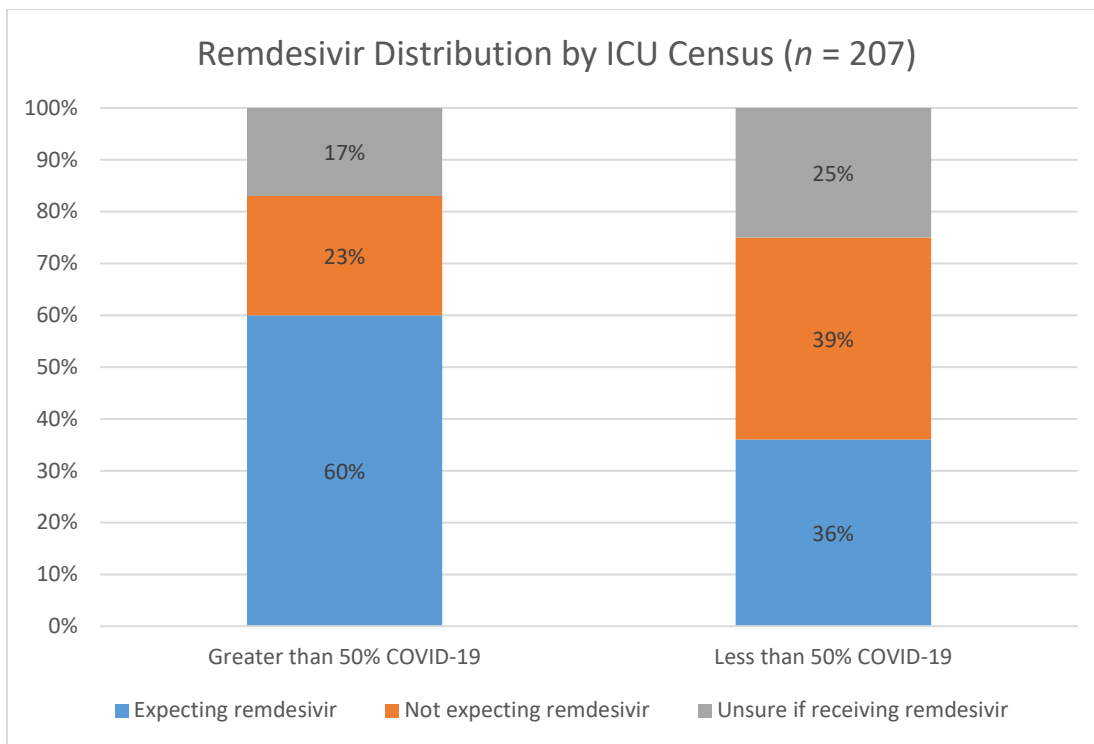


Remdesivir

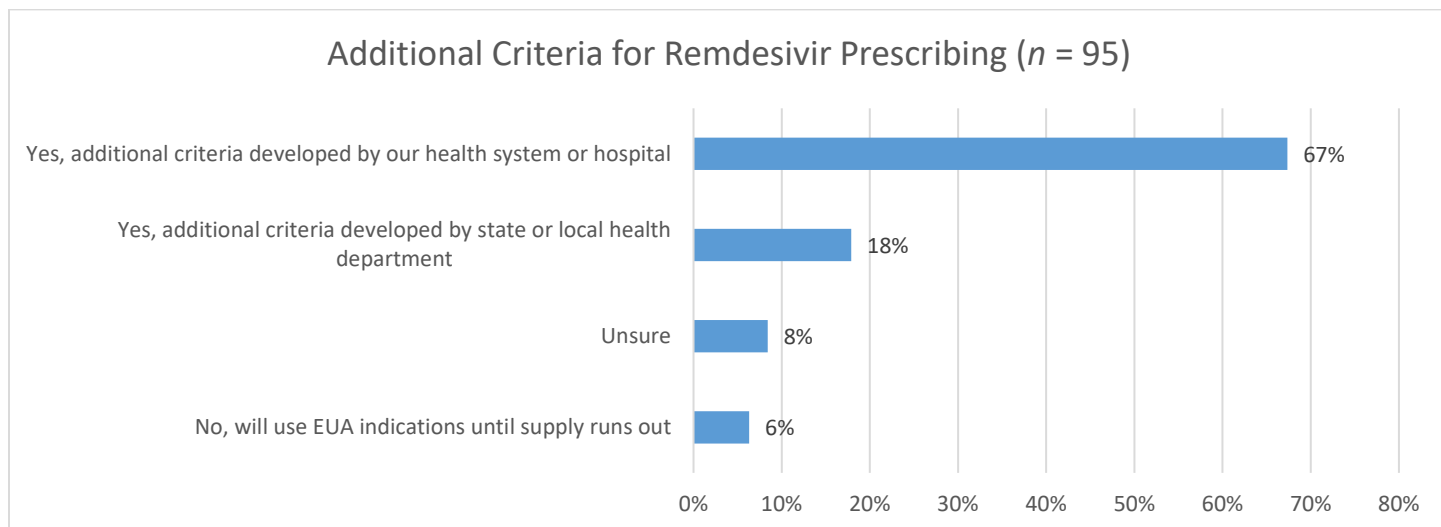
- 41% of the 220 respondents working in an inpatient setting indicated they expect to receive a supply of remdesivir at their institution.



- A higher percentage of respondents indicating an ICU surge (greater than 50% COVID-19) expect to receive remdesivir compared to respondents not indicating an ICU surge.



- The Food and Drug Administration’s Emergency Use Authorization for remdesivir allows use in hospitalized patients meeting specific clinical criteria. Respondents at hospitals expecting to receive remdesivir were asked if additional clinical criteria will be used to determine which patients will receive remdesivir.



ABOUT ASHP

ASHP represents pharmacists who serve as patient care providers in acute and ambulatory settings. The organization’s nearly 55,000 members include pharmacists, student pharmacists, and pharmacy technicians. For more than 75 years, ASHP has been at the forefront of efforts to improve medication use and enhance patient safety. Visit ASHP’s [COVID-19 Resource Center](#) for helpful information about COVID-19.

For more information about the survey findings, please contact ASHP’s Center for Medication Safety and Quality at quality@ashp.org.