Figure 1. Community acquired and hospital acquired bloodstream infections in COVID-19 patients admitted to the ICU

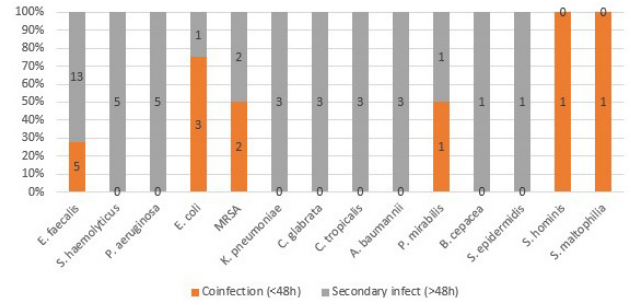
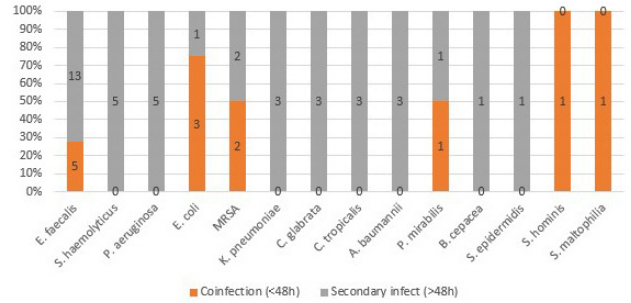


Figure 2. Community acquired and hospital acquired urinary tract infections in COVID-19 patients admitted to the ICU



Conclusion. Community and hospital acquired infections were common and in the ICU and likely contributed to patient outcomes. More than two thirds of HAIs in the ICU were BSIs. Central venous catheter device utlization and maintenance may play a role in BSIs, along with immunosuppression from COVID-19 therapeutics and translocation from mucosal barrier injury. Mortality in patients with coinfections was higher than those without. Infection prevention strategies to reduce device utilization during COIVD-19 in LMICs may have an impact on HAIs.

Disclosures. **All Authors**: No reported disclosures

407. Minimum Manufacturing Costs, National Prices and Estimated Global Availability of New Repurposed Therapies for COVID-19

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Session: P-17. COVID-19 Global Response/Response in Low Resource Settings

Background. Currently, only dexamethasone, tocilizumab and sarilumab have conclusively been shown to reduce mortality of COVID-19. No drug for prevention or treatment in earlier stages of COVID-19 are yet found, with previously promising drugs such as hydroxychloroquine and remdesivir have been shown to be ineffective. Several new candidates are now being studied in clinical trials. Safe and effective treatments will need to be both affordable and widely available. We therefore revised our original 2020 analysis to reflect recent developments. In this update we analysed the cost of production, current national list prices, and API availability for oral and IV dexamethasone, ivermectin, colchicine, dutasteride, budesonide, baricitinib and monoclonal antibodies tocilizumab and sarilumab.

Methods. Costs of production for new and potential COVID-19 drugs (dexamethasone, ivermectin, dutasteride, budesonide, baricitinib, tocilizumab, sarilumab and colchicine) were estimated using an established and published methodology based on costs of active pharmaceutical ingredients (API), extracted from the global shipping records database Panjiva. This was compared with national pricing data from low, medium, and high-income countries. Annual API export volumes from India were used to estimate the current availability of each drug.

Results. Repurposed therapies can be generically manufactured at very low per-course costs: ranging from $2.58 for IV dexamethasone (or $0.19 orally) to $0.12 for ivermectin. No export price data was available for baricitinib, tocilizumab or sarilumab. When compared against international list prices, we found wide variations between countries. Drug API availability was generally good, with colchicine being the most available with sufficient annual API exported for 59.8 million treatment courses. A summary is shown in Table 1.

Table 1. Summary of list prices, estimated production costs, and current availability of potential COVID-19 drugs selected for analysis. OD = Once daily, BD = twice per day, EUA = Emergency Use Authorisation (only to be given with remdesivir) *In most recent 12-month period.

Drug, Duration and Dose	Highest List Price	Lowest List Price	Estimated Cost (Course)	FDA Approval	WHO Approval	Estimated Current availability*
Dexamethasone IV 10 days 0.6mg OD (6mg total)	$26.47 UK	$0.98 Vietnam	$2.58	Yes	Yes	7.4 million treatment courses
Dexamethasone PO 10 days 0.6mg OD (6mg total)	$30.79 UK	$0.22 Peru	$0.19	Yes	Yes	
Ivermectin PO 5 days 0.4mg/kg OD in 70kg adult (140mg total)	$840.15 Germany	$1.66 India	$0.12	No	No	3.9 million treatment courses
Colchicine PO 30 days 0.5mg BD (d1-3) 0.5mg OD (d4-30)	$61.73 USA Pharmacy	$0.39 Vietnam	$0.47	No	No	60 million treatment courses
Dutasteride PO 30 days 0.5mg OD (15mg total)	$52.81 China	$0.82 Kenya	$0.64	No	No	45.3 million treatment courses
Baricitinib PO 14 days 4mg OD (56mg total)	$2,326.38 USA Pharmacy	$6.67 Bangladesh	—	EUA	No	—
Sarilumab IV once 400mg single dose	$4850.90 USA (Veterans)	$877.07 Israel	—	No	No	—
Tocilizumab IV once 600mg single dose	$3625.05 USA (Pharmacy)	$358.59 Turkey	—	No (but the NIH does)	No	—
Budesonide INH (inhaler price) 800mcg twice/day	$45.74 Norway	$3.49 India	$3.84	No	No	

Summary of list prices, estimated production costs, and current availability of potential COVID-19 drugs selected for analysis. OD = Once daily, BD = twice per day, EUA = Emergency Use Authorisation (only to be given with remdesivir) *In most recent 12-month period.

Conclusion. Successful management of COVID-19 will require equitable access to treatment for all, not just those able to pay. Repurposed drugs can be manufactured at very low costs if shown to be clinically effective, and offers an affordable, widely available option for patients at all stages of the disease from pre-exposure prophylaxis to asymptotic and mild infections, through to critical care until vaccination coverage is expanded.

Disclosures. **All Authors**: No reported disclosures

408. Impact of the COVID-19 Pandemic on Antimicrobial Use and Resistance in the United States and the Dominican Republic

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Background. The disease caused by SARS-CoV-2, COVID-19, has caused a global public health crisis. Lower respiratory tract infections (LRTIs) caused by COVID-19 has led to an increase in hospitalizations. Disease severity and concerns for bacterial co-infections can increase antimicrobial pressure. Our aim is to define and compare the impact of COVID-19 on antimicrobial use (AU) and antimicrobial resistance (AMR) in the Dominican Republic (DR) and the United States (US).

Methods. We performed a retrospective review of AU and antimicrobial susceptibility patterns from 2019-20 at a hospital in the US (H-US) and the DR (H-DR). Our sites are community teaching hospitals with 151 beds in H-US and 295 beds in H-DR. After AU was tabulated, percent changes between 2019-20 were calculated. Resistance patterns for extended-spectrum beta-lactamase producing (ESBL) *E coli*, ESBL *Klebsiella pneumoniae (ESBL-Kp)*, carbapenem resistant *Pseudomonas aeruginosa* (CR-PSAR) and *Klebsiella pneumoniae (CR-Kp)* were tabulated and percent changes between 2019-20 were calculated.

Results. AU increased by 10% in H-US and 25% in H-DR, with carbapenem use increasing by 268% and 144% respectively. Ceftriaxone use increased by 30% in H-US and 33% in H-DR. Azithromycin increased 54% in H-US and 338% in the H-DR. Resistance increased from 10% to 28% for *ESBL-Kp* and from 10% to 12% for ESBL *E*