

Adapting Antibiotic Stewardship Practices during a Public Health Emergency

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SIDP

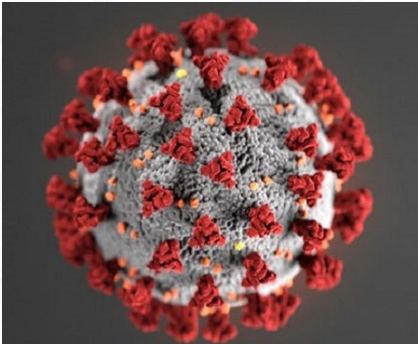
SOCIETY OF INFECTIOUS
DISEASES PHARMACISTS

Barriers to Successful Stewardship in a Pandemic



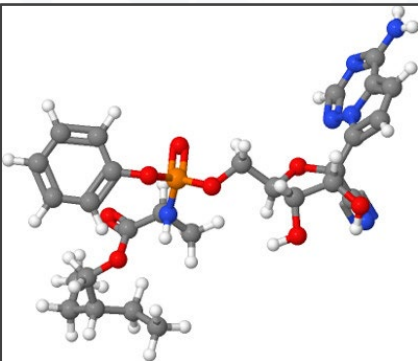
Diagnostic Uncertainty

- Minimal aerosol generating procedures and PPE conservation



Novelty of Disease State

- Rates of bacterial or fungal co-infection not well described



Personnel Shifts

- Stewards redirected to other roles

Local Experience – Diagnostic Uncertainty + Novel Disease State

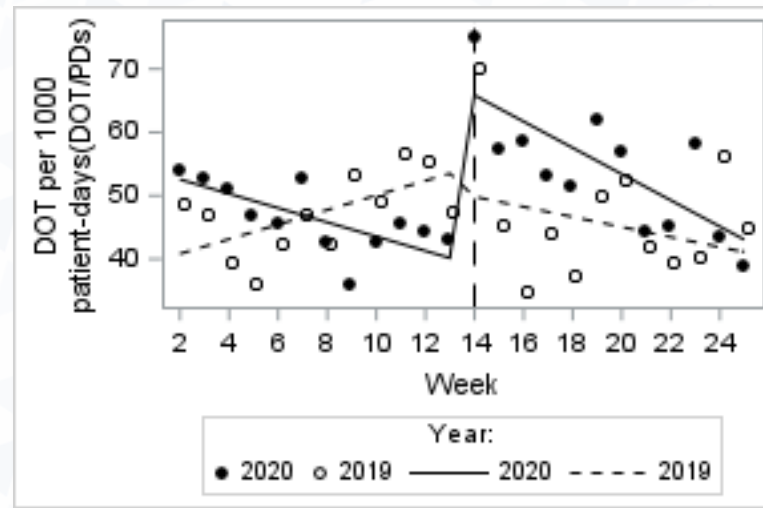


Respiratory viral panels

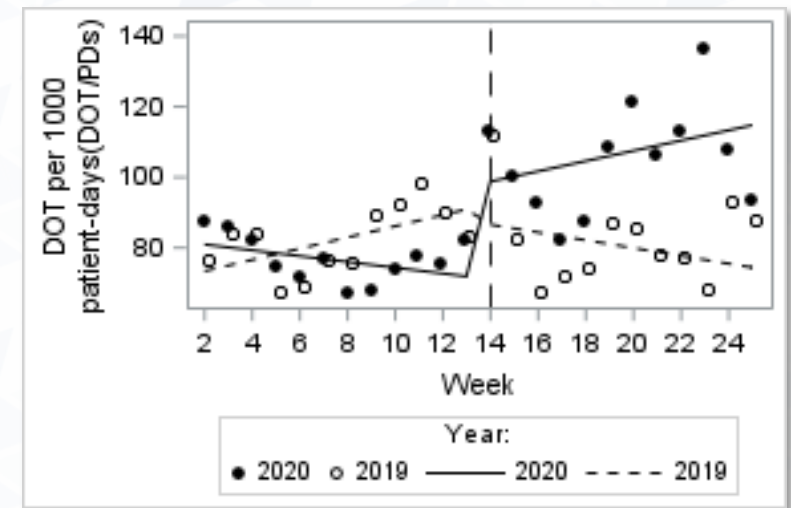


Sputum cultures, bronchoscopies

Antibiotics for Bacterial Pneumonia in Patients with Confirmed COVID-19



Within 7d of admission



Total

Antimicrobial Use (AU) during COVID-19



3.5%

Acute bacterial co-infection
in COVID-19

14.3%

Secondary bacterial infection
in COVID-19



72%

Patients received
antibiotic therapy



74%

Antibiotics prescribed were
fluoroquinolones & third-
generation cephalosporins

Local Experience – Personnel Shifts & Program Initiative Delays

Day-to-Day Stewardship Activities

- Prospective audit and feedback of restricted antimicrobials
- Other stewardship alerts (e.g., positive blood culture review)



- Development and maintenance of COVID-19 Therapeutic Guidelines
- Clinical trial involvement
- Allocation of remdesivir
- Review and approval of other high-cost novel therapeutics (e.g., tocilizumab)

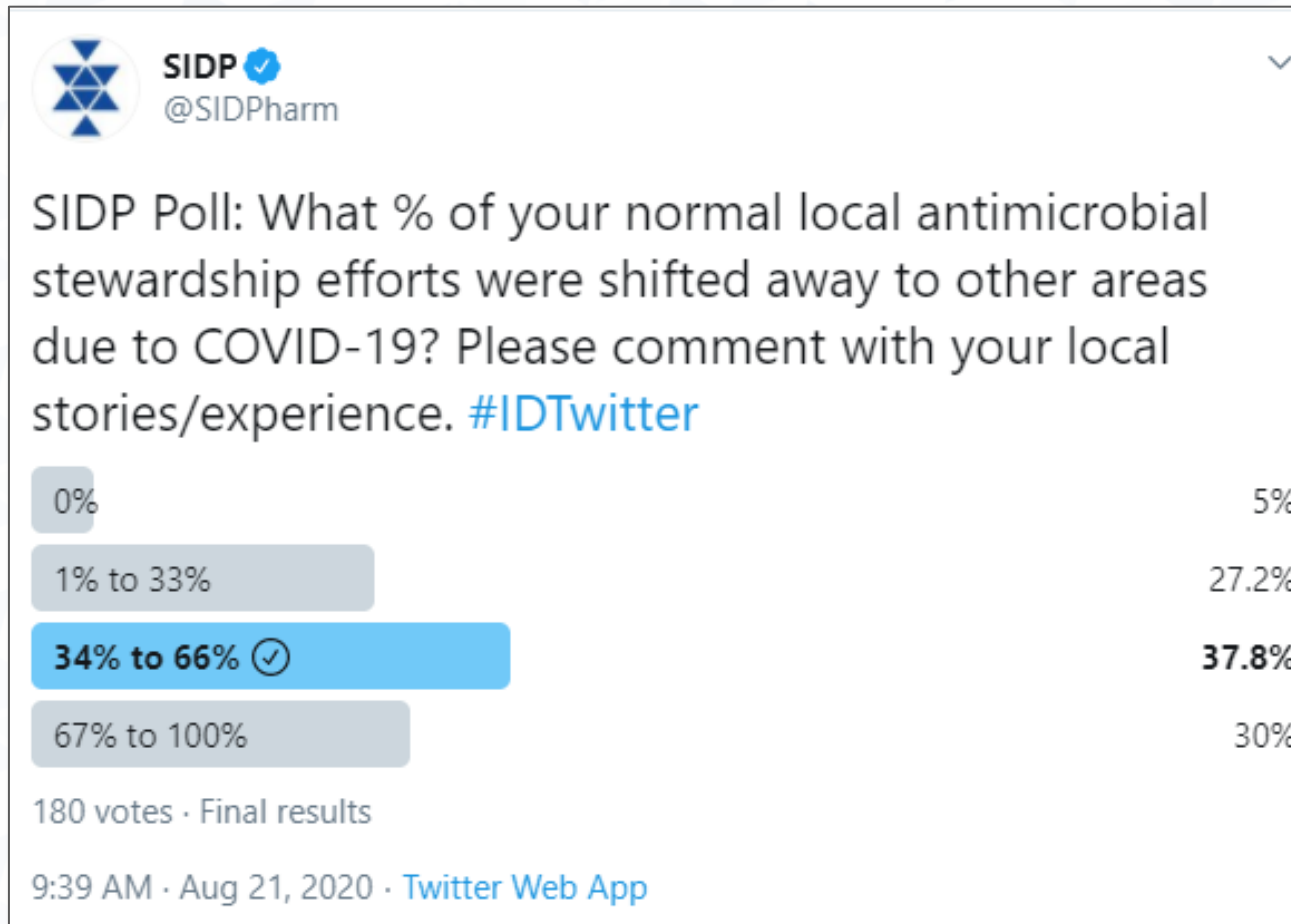
Progress on Long-Term Goals

- Launch of new rapid technology for bloodstream infections in the microbiology laboratory
- Validation of susceptibility testing for novel antimicrobials and corresponding formulary reviews
- Monthly antimicrobial utilization reporting and annual antibiograms



- SARS-CoV-2 testing and reporting
- Shift to broad-spectrum, costly agents for PPE conservation

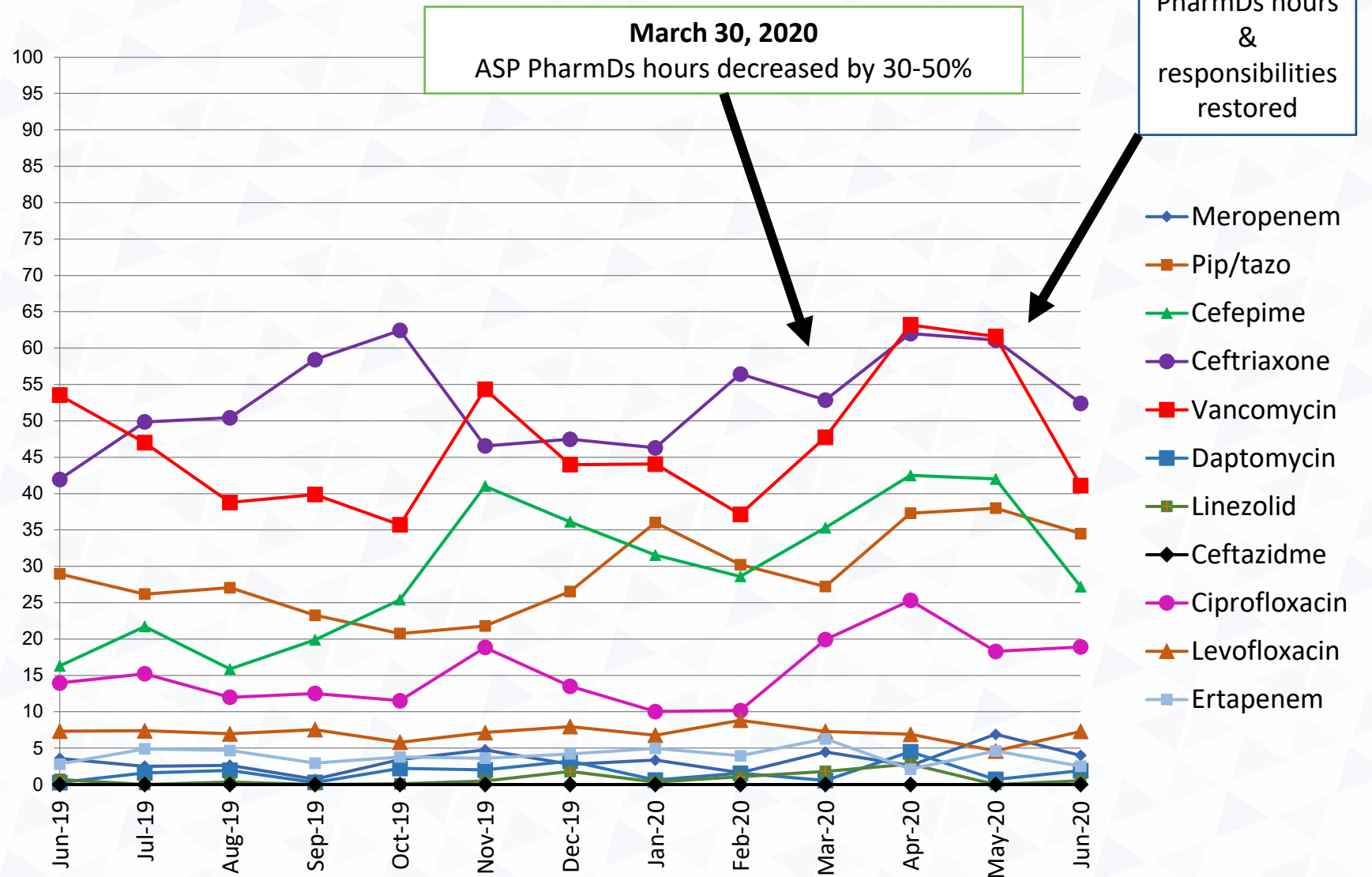
ID Pharmacist Experience – Personnel Shifts & Program Initiative Delays



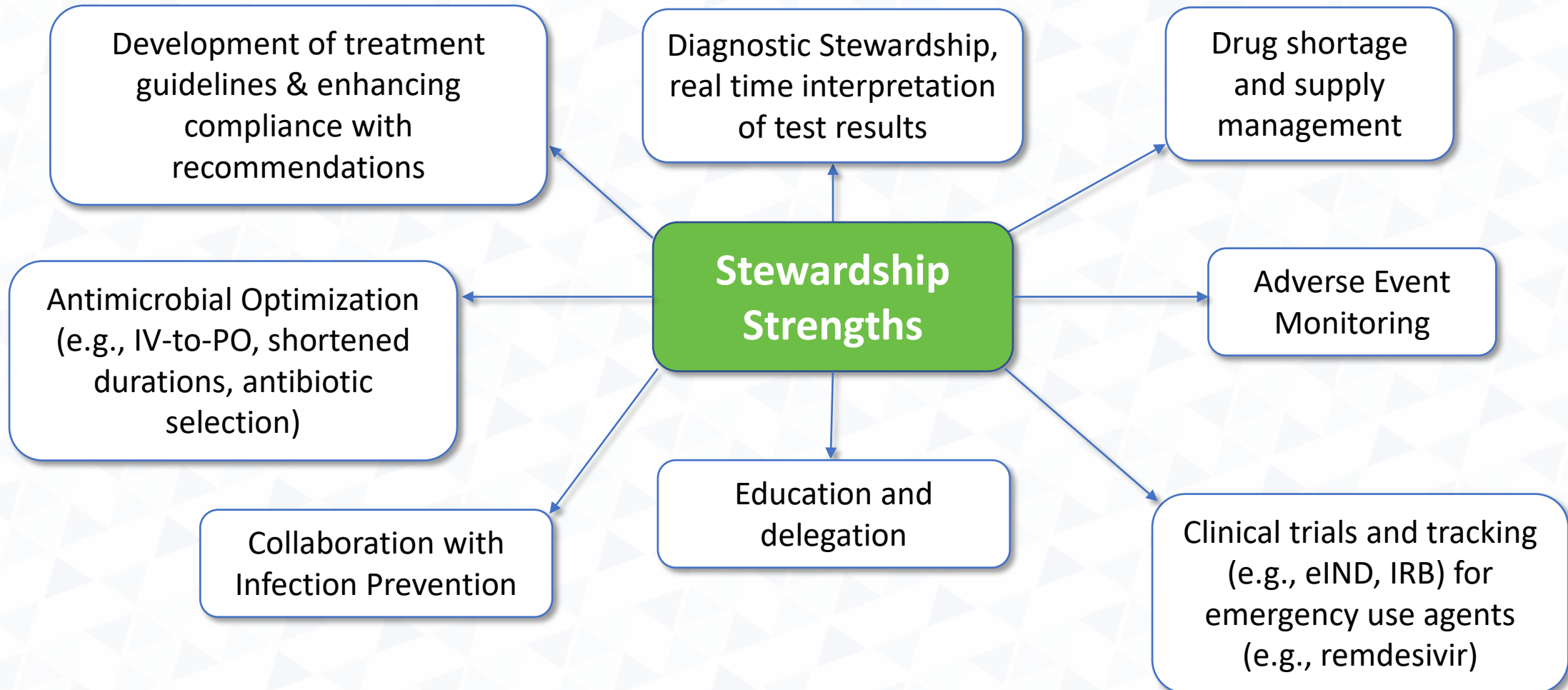
“Our usual tracking systems came to a halt. Extra hours went into treatment, active cases, clinical trials and EUA. There weren’t enough hours to catch up. Non-COVID initiatives came to a halt.”

Shift in Stewardship Resources

Antibiotic Days of Therapy/1000 Days Present



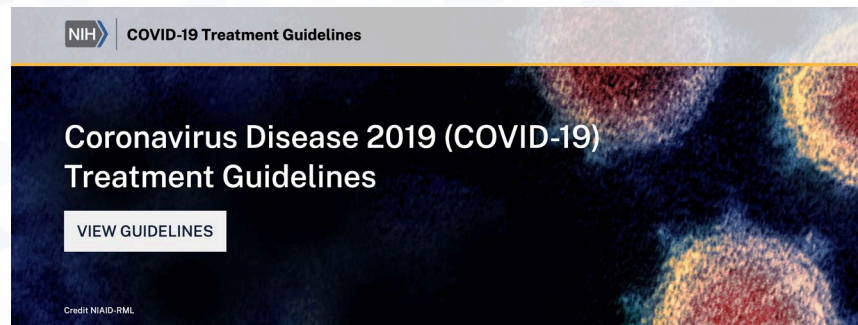
Leveraging Stewardship Experience in a Pandemic



Peer Support Saves the Day



COVID-19 Resource Center —



NOVEL CORONAVIRUS 2019 (2019-NCOV) RESOURCES

Acknowledgments

- University of Maryland Medical Center Antimicrobial Stewardship to Improve Clinical Outcomes Team
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