

Strengthening Defenses in a Dynamic Health Landscape: Building Resilient Systems for Effective Infection Prevention

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Vanessa A Makarewicz, MN, RN, CIC

Director, Infection Prevention and Control

UW Medicine – Harborview Medical Center

She/Her/Hers

vamakar@uw.edu

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UW Medicine
HARBORVIEW
MEDICAL CENTER



Disclosure

- > Speaker has no relevant financial relationships to disclose with ineligible companies whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.



Objectives

- > Identify key program functions and what your program has capacity to support
- > Identify programmatic boundaries that your program are willing to make
- > Identify one intervention that you will incorporate into your current practice







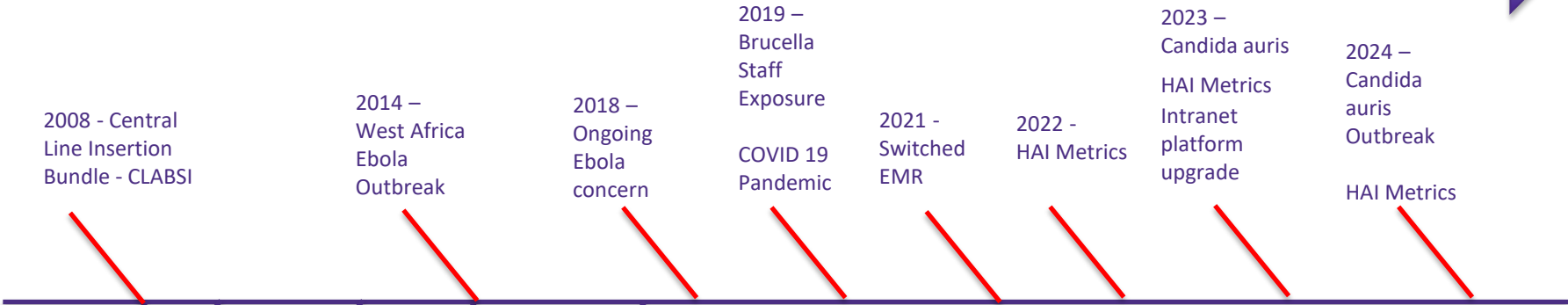
You Are Here!



Emerging Pathogens

Global Pandemic

Normal Ops Pressure – HAI, Outbreaks (resp/GI), Regulatory, HLD/Cleaning, EOC




Social Isolation

VA CNS





IPC Team:
2020 - Current



**“We cannot be personally resilient
without the system being
resilient.” - Me**

Organizational

Departure of workforce (extra work among fewer people)

Health systems are not structured to rapidly adopt IP strategies

Collateral damage: HAIs and AMR

IP/AS programs remain busy in surge and post-surge conditions

- Escalation and de-escalation of IP protocols
- Ensuring supply of inpatient and outpatient therapeutics

Professional

Pandemic roles and responsibilities are ill-defined

- Constantly "on call" with poor work/life balance

Multiple responsibilities including direct patient care

Suboptimal protected time for pandemic and usual responsibilities

Work largely occurs behind the scenes

- Undervaluation compared to other hospital colleagues
- Leadership unaware of scope of daily efforts and contributions

Societal

"Dyssynchrony" of IP guidance for community vs. healthcare settings

Response to new COVID-19 waves remains reactive with constant threats to funding

Colleagues and social networks embrace a normalcy while IP/AS workforce are constantly preparing for future surges

Personal

Potential moral injury when IP staff are asked to promote policies they deem suboptimal or based on incomplete data

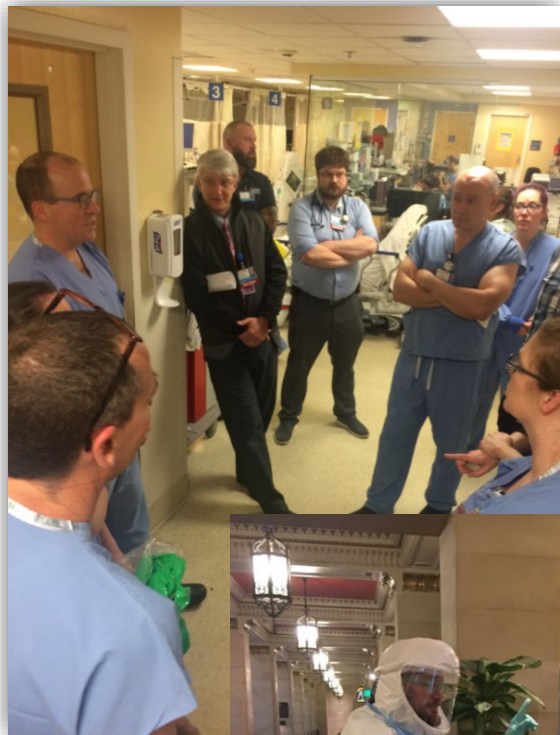
Potential moral injury and ethical dilemmas for AS staff involved in rationing limited COVID-19 therapeutics

Organizational Relationships - Stakeholders



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- HMC Microbiology Lab and UW Virology Lab
- HMC Environmental Services
- HMC Facilities and Engineering
- HMC Food and Nutrition Services
- Therapies: PT/OT/Speech
- UWM Supply Chain
- Security Services and Screeners
- HMC Spiritual Care
- HMC/UWM Pharmacists
- HMC Phlebotomists
- Every meeting/Every Council



Program Risk Assessment and Risk Mitigation



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The Regulatory Operations – What keeps the lights on

- > NHSN reporting
 - MRSA
 - C diff
 - CLABSI
 - CAUTI
 - SSIs: COLO/HYST
 - AUR Reporting
 - COVID/FLU vaccination
 - COVID/FLU/RSV census
- > NHSN Maintenance
- > Other regulatory reporting: Leapfrog
- > Other data requests from Services and Departments
- > Training – Monthly webinars, Annual training, Conferences

What we let go of in 2021:

- SSIs: HPRO, KPRO, Spinal, Crani, Eyes
- VAEs (VAP)

What we are reengaging 2024:

- Pathogens of Epidemiological Concern - PECs



Employee Health/Occupational Health

- > Staff Safety – LNI
- > Assessment of hazard, BBP/OPIM
- > Vaccination
- > Workplace violence reporting



What is the impact on the organization/Patient?

What is your data?

How much time does this take?

Are you able to complete?

The Normal Operations



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Infection Prevention & Control Plan for Fiscal Year 2024 (FY2024)

Division:	Medical Director
Effective Date:	1/2010
Review Date:	2/2024
Reviewer:	Infection Prevention

POLICY PURPOSE:

Infection Prevention and Control (IPC) is an... programs at Harborview Medical Center (H... preventing the transmission of infections an... describes how HMC will implement prevent... measures, interdepartmental involvement, a...

Modifications to the plan are made as nece... Infection Prevention and Control Committee... risk reduction strategies, and programs incl...

FY 2023 Program Activity List:

- Hand Hygiene/Patient Safety
- Targeted Surveillance
 - Multi-drug resistance organisms (MDRO): MRSA
 - Pathogens of epidemiological Concern (PEC)
 - Clostridium difficile (C diff)
 - Central Line Associated Bloodstream infections (CLABSI)
 - Catheter Associated Urinary Tract infections (CAUTI)
 - Surgical Site Infections (SSI) - Colons and Hysterectomies
- Antimicrobial Stewardship
- Sepsis
- Environment of Care
- Disaster Planning/Special Pathogens – COVID 19/Ebola Virus Disease
- Employee Health Support
- Education/Administrative Activities

Goal:	Reduce Catheter Associated Urinary Tract Infections (CAUTI) to < 2.24 per 1000 catheter days
Definition	CAUTI per NHSN definition: http://www.cdc.gov/nhsn/PDFs/pscManual/7pscCAUTIcurrent.pdf
Surveillance & Population	All patients with an indwelling urinary catheter who have positive urine culture
Timeframe	Monthly
Case Finding & Methodology	CAUTI cases are reported through NHSN
Risk Adjustment	N/A
Metric	CAUTI rate per 1000 catheter days
Evaluation Goal	<2.24 per 1000 catheter days
Organization Connection	FY2023 Result: UW Medicine: HMC Patients are First Goal

“When everything becomes a priority, then nothing is a priority” – Karen Martin

Strategies

1. Two-person insertion protocol (refer to **Urinary Catheter Policy**)
2. RN Timeout Procedure Note for urinary catheter insertion for monitoring of compliance with insertion bundle (refer to **Urinary Catheter Policy**)
3. Monitoring of urinary catheter maintenance bundle elements
4. Appropriate placement and ongoing use of the indwelling urinary catheter based on CDC indications
5. Regular assessment of the need to use alternative devices to indwelling catheter for selected patients (e.g. spinal cord injury patients) – refer to nursing policies and procedures on use of **external female catheter** and **external male catheter**
6. Daily review of medical necessity and documentation within the medical record- Utilization of EPIC reports
7. Provide patient education regarding prevention of CAUTI
8. Monthly device auditing by Quality Champion RNs and support with QC program
9. Annual competency training for all healthcare providers who interact with urinary catheters
10. Quarterly Foley Prevalence Data collection by the Pressure Ulcer Prevalence (PUP) team
11. Engagement with EPIC and Antimicrobial Stewardship teams in diagnostic stewardship of urine cultures.
12. Engagement/Education to units regarding RN driven catheter removal protocol

Strategy Evaluation	FY 2023	FY 2024
1	Maintained	Enhancement and Support
2	Maintained	Enhancement and Support
3	Maintained	Maintain
4	Maintained	Maintain
5	Enhance and Support	Maintain
6	Maintained	Maintain and Enhance
7	Maintained	Maintain
8	Engage and Innovate	Enhancement and Support
9	Maintained	Maintain
10	Completed – December 2023	
11		Engage and Innovate
12		Engage and Innovate

Reporting & Feedback

- CAUTI rates are posted to A2E each month and are available to all employees.
- These findings are reported monthly at departmental meetings including, but not limited to: Device Committee, Patient Care Services, Critical Care Council, Surgical Council, Acute Care Council, Infection Prevention & Control Committee, SEICS, AACS, Quality Improvement Reporting Committee (QIRC), HMC IPCC, and daily Safety Huddles.

Questions that need to be asked

- > What are the priorities of your organization?
- > Do they align with your program plans/priorities?
- > Can you achieve the priorities with what you have? What do you need to be successful? What may need to go away (boundaries)?
- > Where do you need to negotiate?
- > What is actually realistic?



Daily Operation Tasks of HMC IPC

COVID Review

Respiratory Virus
Death Reporting

XDR0 Screening –
CPOs, CRABs, Candida auris,
International admits, High risk
transfers, Clinic Clearances,
Coordination with EVS/Cleaning
procedures

TB Review

Create daily Iso list
for MD review

Review for IPC
clearances:
(~150/day in iso)

Review Infection
List

PAGER
SUPPORT/EPIC
SECURE CHAT
SUPPORT

Rounding on Units

Daily Charge RN
Meeting

What is the impact on the
organization/Patient?

What is your data?

How much time does this take?

Are you able to complete?

Department	Service	Infection Topic	Subtopic	Detail	Response	Can be answered with a policy	TIME COMPLETE	Time Spent on Consult (minutes)	Consult Length (hrs:min)	IPC Staff	Notes
Resus Boarders		MRSA	Testing	good morning. This patient had a positive MRSA swab 3/23. Do we need to swab him again? He has a wound but it is wrapped up. Does he need to be on precautions?	See SB, surgical wounds only. Updated to mrsa colonization.	Yes	7:49	5-10	0:07	Rocky	
9MB TSICU		VZV	Clearance	- Do they need to be in airborne precautions with no varicella lesions?	OK for standard precautions; SB updated. Policy reviewed.	Yes	10:12	5-10	0:10	Rocky	
9E Burns/Peds		MRSA	ISOLATION	- NSTI pathway vs. MRSA. I want to update SB but a little confused.	Discussed the different pathways. SB updated to R/O MRSA, contact precautions in place.	Yes	11:30	5-10	0:06	Rocky	

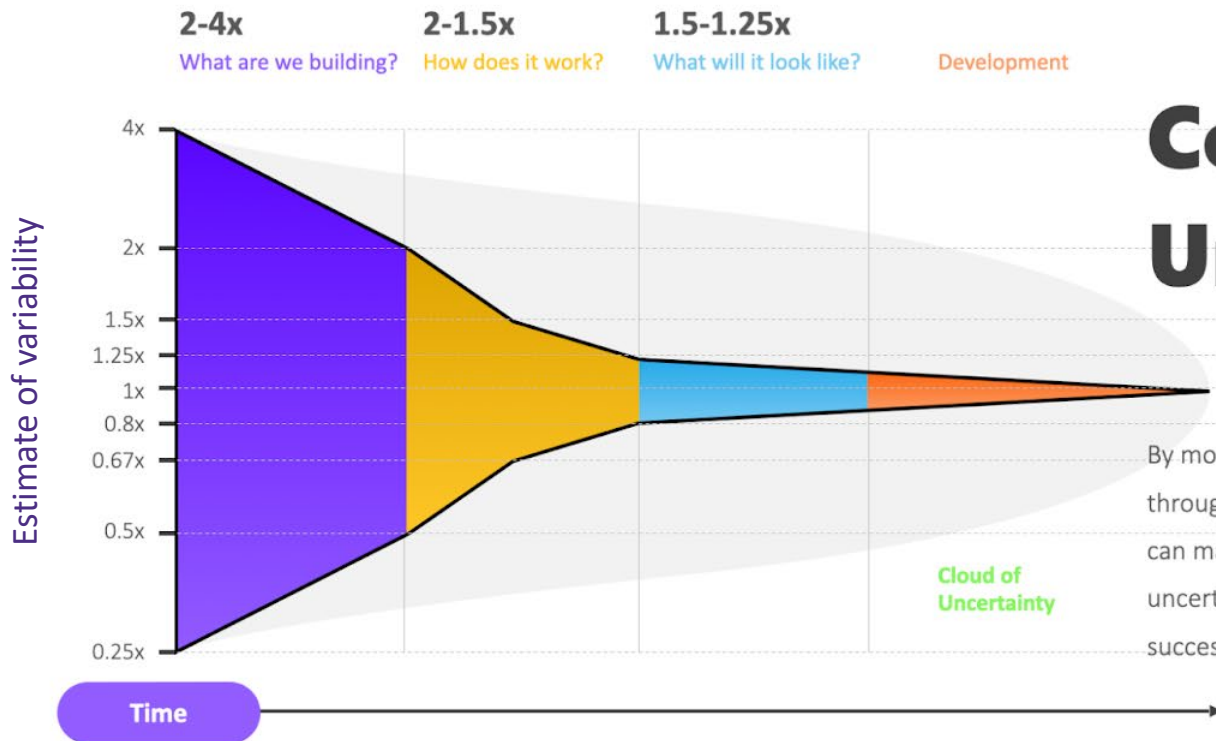
The Outbreaks – The Disasters – The Fires of the Day



Cone of Uncertainty

- > Cone of Uncertainty refers to the evolution of the number of “best case” uncertainty during a project
- > Little is known at the beginning of a project as well as the product or results
- > There is a LARGE amount of uncertainty
- > Understanding the level of uncertainty is important to plan for those risks





Cone Of Uncertainty

By monitoring the Cone of Uncertainty throughout the project's lifecycle, your team can make more informed decisions, manage uncertainties effectively, and ultimately deliver a successful software product.

Disaster Planning – Beyond the phone tree

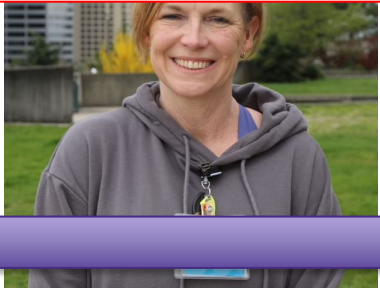
- > Mitigation, preparedness, response and recover
- > Organization Plan
- > Department Plan

DEPARTMENT SOP – Infectious Events

- > Personnel → Increased FTE, How to keep lights on?
- > Distribution of duties
- > Command center support → support from the organization
- > Tabletop exercises



MDRO/Outbreaks/EVS
/Weird things/PH
liason



CLABSI/CAUTI



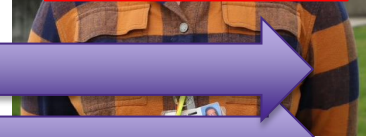
SSIs/Hand
Hygiene



Facilities/EOC



Everything else –
Education, HLD,
System
leadership, trash
can, team
support,
regulatory, SPaT



Call 24/7/365

Emerging Pathogens

Global Pandemic

System COVID

System COVID

AMS – System

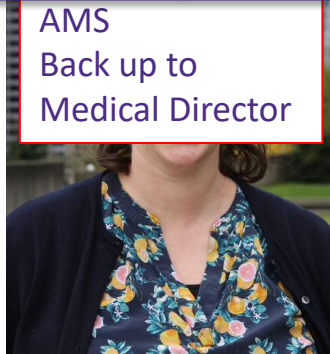
Supporter

Normal Ops Pressure – HAI, Outbreaks (resp/GI), Regulatory, HLD/Cleaning, EOC

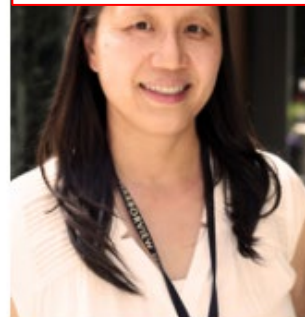
Regional SME
AMS
Employee Health
Sepsis



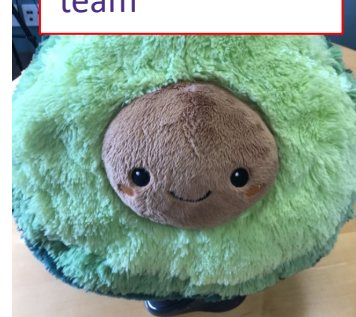
AMS
Back up to
Medical Director



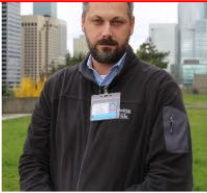
Therapeutics



Supporter of
team



Facilities/EOC



Nathan Napolitano, MPH
Infection Preventionist
nrxn@uw.edu

MDRO/Outbreaks/EVS /Weird things/PH liason



Krista Rietberg, MPH, CIC
Infection Preventionist
rietberg@uw.edu

CLABSI/CAUTI



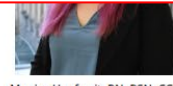
Bonnie Decker, RN, BSN, MPH
Infection Preventionist
mrbonnie@uw.edu

Surveillance IP – ONLY DATA and NHSN Support*



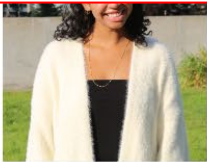
Tony Estabane, RN, BSN, CIC
Infection Preventionist
jollivas@uw.edu

IPC Education, Hand Hygiene, SPaT

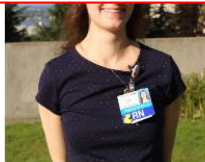


Monica Hoefsmit, RN, BSN, CCRN
Clinical Nurse Educator
mhoefs@uw.edu

IPC Operations RNs – Normal Ops 7 days a week



Raquel (Rocky) Dixon,
RN, BSN, PCCN
IPC Ops RN
rmd5@uw.edu



Leigh Haldeman, RN, BSN
IPC Ops RN
lhaldey@uw.edu



Yashika Harris, RN, BSN
IPC Ops RN
yashika@uw.edu

Sepsis



Elizabeth Njie, RN, BSN
Sepsis Coordinator
206-744-9564
emnjie@uw.edu

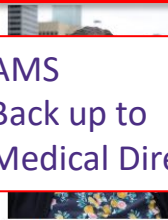
AMS – System and Regional Therapeutics



Jeannie Chan, PharmD, MPH
Antimicrobial Stewardship Pharmacist
206-540-9742 (pager)
jdchan@uw.edu

System COVID
Response
Regional SME
AMS
Employee Health
Sepsis

AMS
Back up to
Medical Director



Chloe Bryson-Cahn, MD
Medical Director, Antimicrobial Stewardship
206-744-6014
chloeabc@uw.edu

Still Everything –
A little less – Still
working on it



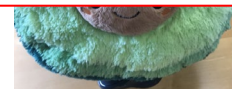
Vanessa Makarewicz, RN, MN, CIC
Director, Infection Prevention & Control
206-744-3985
vamakar@uw.edu

Administrative
Support



Maddi Danks
Program Coordinator, Infection Prevention & Control
206-744-3657
mdanks@uw.edu

Comfort
Frustration
Supporter of
team



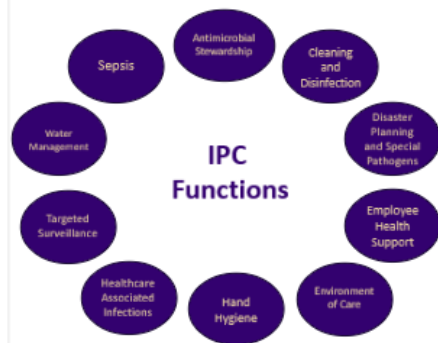
PURPOSE

To optimize Infection Prevention and Control (IPC) workflow at a large urban medical center in the Pacific Northwest.

BACKGROUND

IPC services and related programs across the United States were significantly impacted by the COVID-19 pandemic. Departments across the US experienced:

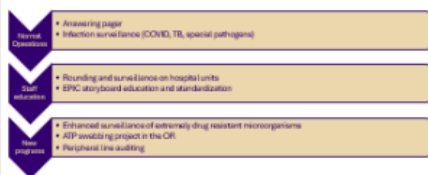
- Remarkably high call volumes (Sova et al., 2021; [Alsuhaibani et al., 2022](#); [Goff et al., 2022](#)).
- Increased demands coupled with shifts in IPC responsibilities negatively impacted normal IPC and hospital wide metrics (Taylor et al., 2022).



The Infection Prevention and Control department is involved in a wide range of programs throughout the institution.

DESCRIPTION

- Operations Registered Nurses (Ops RNs) joined the team in September of 2022 to manage IPC daily operations.
- Data was collected beginning in 2022 on the number, nature, and length of pages received.



EVALUATION

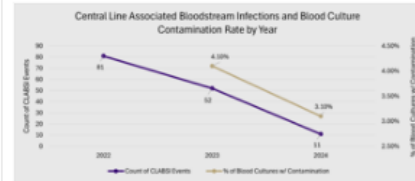


Number of daily pages decreased after Ops RNs joined.



Communication related safety incidents have decreased 71% since 2021.

- Subjective increase in team members' job satisfaction
- Ops RN involvement has assisted the team in shifting from contingency protocols to sustainable standardization across entities (Taylor et al., 2022; Smith et al., 2023).



Examples of how team's Infection Preventionists have been able to re-engage in leading IPC programs, improving both IPC and hospital wide metrics.

CONCLUSIONS

While this role continues to evolve, the introduction of nurses to manage daily IPC operations has offloaded call work from IPs and reduced the overall number of staff questions, resulting in lower call volume.

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2. [Goff, L. J., Anderson, F., Pearson, T., Foster, L., Talle, L., & Anderson, S. A. \(2022\). Will the COVID-19 Pandemic Impact Reporting of Infection Prevention in the United States? *Journal of Infection Control and Prevention*, 27\(1\), 1-9. \[https://doi.org/10.1093/cjcp/ckab017\]\(#\)](#)

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5. [Taylor, B., Smith, B., Hsu, C., & Reynolds, T. \(2022\). The Role of Infection Prevention Department Structure in Reporting Program Stability. *American Journal of Infection Control*, 47\(1\), 1-9. \[https://doi.org/10.1016/j.ajic.2021.09.001\]\(#\)](#)

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Notes

Work still needs to be done ...

Business needs of the department continue to be dynamic ...

Department still needs to heal and rest ...

Continue to advocate for department support through data ...

Organizational

Professional

Societal

Personal



You Are Here!



References

> APIC Webinars:

- [Association for Professionals in Infection Control and Epidemiology: Leadership Series: Redefine, Restructure and Rest: Leading for Resilience \(apic.org\)](#)
- [Association for Professionals in Infection Control and Epidemiology: Leadership Series: The Power of One: The Lone IP's \(apic.org\)](#)

