

# Pseudo Outbreak in Bronchoscopy Presented, February 2021

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# Situation

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Case investigated with facility Infection Preventionist, Infectious Disease, and Endoscopy Personnel

# When One of Your ID Physicians is Worried..

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## *One of those days.....*

- ID physician notifies Infection Prevention (IP) regarding a few patients that they have been referred on with *Mycobacterium Mucogenicum* cultured from bronch specimens within the last few months
- IP requests lab reports from Micro and 7 patients are identified with positive cultures from May 2017 to January 2018.
- According to the pulmonologist, the positive specimens did not seem to have clinical significance for the involved patients.

*Reference text; 2018*

# Investigation

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Specimens collected during bronchoscopy procedures conducted in the Endo Lab by the same provider

- 2 cases in May
  - 1 in June
  - 1 in September
  - 1 in November
  - 1 in December
  - 1 in January
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- Attack rate for the one pulmonologist = 9%
  - Attack rate for other pulmonologists = 0

# Investigation

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## Background

- There were no cases of Mycobacterium Mucogenicum in 2016.
- There were two other cases of Mycobacterium Mucogenicum in 2017 outside of the GI lab, both in the OR, from pleural fluid and one from an incision s/p laminectomy surgery. These cases were excluded from our case reviews.
- The involved pulmonologist began at the facility in Jan 2017.
- A new therapeutic scope, was purchased for this physician's procedures and is used almost exclusively for their cases.



# Investigation

*Mycobacterium mucogenicum* isolates are associated with a wide spectrum of clinical disease in both immunocompetent and immunosuppressed individuals. They are also commonly implicated in outbreaks of infection resulting from contaminated hospital equipment and water sources.



# Investigation

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- All cases with the exception of one (6/7) from June 12<sup>th</sup> had two scopes that were used on all procedures a Therapeutic Scope 2723002 and EBUS scope 1910523. The EBUS scope is used by various providers in the facility.
- Saline was kept on ice in syringes or in a specimen cup for cold lavage. The saline was also kept on the field where specimen containers were set.
- Ice for the cold saline was kept in a cooler in the procedure suite.



# Investigation

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- All scopes are reprocessed via Automated Endoscope Reprocesser (AER), Olympus OER Probe.
- All scopes are pre-cleaned with an Enzymatic Cleaner and underwent HLD with Acecide-C as the disinfectant.
- There are 4 AERs in the GI lab and anyone can be used to process the scopes.
- The biopsy instruments, forceps, used are all disposable and range in brands depending on the technique used in a case.



# Recommendations

# Recommendation:

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- Clean and disinfect ice machine
  - Maintenance had just been performed. We had them repeat.
- Discontinue use of ice for cooling saline on the field during bronchoscopy procedures
- Request lab to save available isolates if needed for later analysis.
- Observe procedures by the provider
- Inquire regarding available Methods to Culture Scope
- Send Scope for Inspection to Manufacturer to check for internal scratches or defects
- Notify S/A Team regarding surveillance of Mycobacterium Mucogenicum cases

# Issues

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- Cold saline needed for hemostasis during biopsy procedures

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- Refrigerator/freezer not conveniently located near the procedure room

## ***Solution***

- Small fridge purchased for the procedure room
- Difficulty encountered with laboratory agreement to culture scope

## ***Solution***

- IP team collected specimen and lab agreed to process

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We utilized the guidance document for culturing duodenoscopes to collect samples from the bronchoscopes.



<https://www.fda.gov/downloads/MedicalDevices/ProductsandMedicalProcedures/ReprocessingofReusableMedicalDevices/UCM597949.pdf>

# Takeaways

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- IPs at facility have an excellent relationship with clinical personnel throughout the facility. That is very beneficial when these types of issues arise.
- There have been no new cases identified.
- Always be concerned when there's water and/or ice utilized in a patient care setting.
- Find an environmental lab that you can utilize for this type of investigation.
- Walk the process! – see what's going on at bedside



# Outbreak Process

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- Outbreak Investigation GA DPH
  
- <https://sph.unc.edu> › 2015/08 › nciph-epiteams-steps

Thanks for your attention. You can find more information on the Duke Infection Control Outreach Network at the link below.

- <https://dicon.medicine.duke.edu/>

# dicon in ACTION

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