Utah Department of Health & Human Services

Meeting Minutes

Laboratory and Surveillance Utah Healthcare Infection Prevention Governance Committee

Date: 08/17/2023

Attendees:
Abby Tate, Alessandro Rossi, April Clements, Ashley Miller, Ashley Young, Bert Lopansri Chrissy Radloff, Elena Snelton, Giulia De Vettori, Jeanmarie Mayer, Jeff Rogers, Kimberly Wilkerson, Linda Rider, Louise Saw, Mandy Dickey, Mark, Nicole Naffziger, Sarah Rigby, Tara Ford, 801-***-**00 801-***-**00
Agenda Topics:
Introductions 1:00–1:05 Giulia De Vettori Action Steps/Plan 1:05–1:25 Dr. Rossi/Angela Weil/Jeffrey Rogers Subcommittee Outcomes 1:25–1:30 Dr. Rossi Situational Awareness 1:30–1:50 Giulia De Vettori Convene
Discussion:

Introductions

- Approve minutes
  - Elena Snelton approved the minutes, April Clements seconded the motion.
- There are a number of new participants (new labs) who have been invited to join us. A moment was provided for introductions in the chat.
  - Dr. Rossi provided background on this subcommittee and purpose.
  - Responses to the survey (3) were also discussed
    - AR capabilities were available at all 3 labs, 2 employ carbapenemase production methods.
    - This survey was sent to just under 20 labs. Dr. Rossi said this was intended to get a better landscape of capabilities in Utah.
      - Dr. Mayer asked how this survey was disseminated — via link and Google docs.
        - This is often blocked by firewalls, so it may be necessary to find alternate survey methods (other websites, phone calls, etc.)
      - Dr. Rossi invited a few labs to answer these questions live, since there were firewall issues.
        - Mandy shared that antimicrobial testing is performed, by Vitech and disk

        - Carbapenemase production is conducted by molecular and phenotype. Colonization screening is performed.
    - Elena reported that the VA lab does perform antimicrobial susceptibility testing via Phoenix and MALDI.
        - They employ carbapenemase production methods. Some colonization is available, but C. auris is sent to ARUP.
- Though there isn't much to say about this survey today, the plan is to bring more structured discussion to future meetings.

Action Steps/Plan

1. Discussion of CRPA submission.
    - Pseudomonas aeruginosa is one of the most frequently encountered organisms in clinical labs
        - Additionally carbapenem resistance in pseudomonas has patterns of susceptibility that can increase the likelihood that an isolate is a carbapenemase producer and a target for surveillance.
    - Dr. Rossi showed a flow-chart for CRPA isolate submission
        - Presumptive CRPA isolate
            a. If it is resistant to meropenem or imipenem, it is not sent to UPHL/ARLN
            b. If it is susceptible to ceftolozane-tazobactam or cefepime or ceftazidime, it is also not sent to UPHL.
            - Otherwise, all submissions should be sent to UPHL.
        - Dr. Mayer mentioned that the EPIC system doesn't handle "or" very well, so they do a 5 gene target at ARUP and also send it to UPHL.
            - Mark said that because they are automatically testing for ceftolozane-tazo because it also has the highest sensitivity/specificity, that's all they are looking at.
                a. It works reasonably well, so they haven't explored other options
                    i. However, if anything breaks in the multi-step process, things may be missed/require manual intervention.
                        1. However, he believes they are capturing all the isolates that are coming in for clinical cultures
    - Angela shared the current wording of the communicable disease rule: Mandatory submission applies only to carbapenemase-producing CRPA isolates identified via phenotypic or molecular assays. Other CRPA isolates can be requested by DHHS on a case by case basis."
        - This rule is currently under revision, aiming to avoid all CRPA submissions and make it more reasonable for everyone. Input would be appreciated.
            - Mark shared that the wording of the "ands" for resistance is key to capture the desired group
                a. "resistant to carbapenem and one of the following…"
                    i. This allows labs to use different triggers based on what susceptibilities they test for.
                b. There are a few panels that have ceftolozane-tazo automated, such as the BD emerge panels?

i. Bert believes the use the emerge panels, but he will have to double check
- Dr. Rossi asked if that would be hard to implement in their labs?
  a. When a highly resistant pseudomonas is seen in the central lab, it will be run on the modified SIM
     i. Bert asked if it should be sent even if a carbapenemase production is negative? Dr. Rossi said no.
        1. ARUP doesn't do the modified SIM test as a frontline screening, but if they get an indeterminate result.
  b. If there is testing that rules out carbapenemase production, UPHL doesn't need the isolate.

■ Discussion about whether there are too many 'ands'. Angela asked if it might be better to simply indicate multiple carbapenems
- Doripenem is also missing from the flow sheet.
- Suggestion to use betalactam subgroups
  a. Wording suggestion: 1) resistant to any of the following: imipenem/meropenem/doripenem AND 2) resistant to ceftolozane/tazobactam.
     i. If ceftolozane/tazobactam testing is not done, then resistant to 1) any of the following: imipenem/meropenem/doripenem AND 2) cefepime or ceftazidime.

○ This input will be helpful to reduce the amount of isolations that are sent to UPHL
- However, it has been a while since a VIM has been discovered.

2. Testing practices
   ○ These have been loosely touched on previously
3. VIM-CRPA
   ○ Jeff reviewed the CDC outbreak of extensively drug resistant pseudomonas associated with artificial tears
   ■ The last update was provided in May 2023
   ■ Contaminated products resulted in 81 cases identified in 18 states.
   - Multiple body sites were considered.
   - Most patients reported using artificial tears, most commonly Eritears

   ■ Adverse outcomes included 14 patients with vision loss, 4 with enucleation, and 4 deaths
   ■ Testing of suspected products and characterization of contaminants is ongoing
   - 3 products have been voluntarily recalled by the manufacturer.

   ○ VIM was first discovered in Italy in 1997, then in France. In 2001, VIM-7 was found in the US
   ■ Three phylogenetic clusters
   ■ VIM can be found worldwide. OXA-48 is sporadic
   ○ CDC case definition and genetic background information discussed.
   ○ In Utah, our first cases was detected in August 2022, VIM confirmed by PCR
   ■ Initially suspected as medical tourism, but travel history did not support.
   ■ Point prevalence survey was conducted, which identified an additional case.

            - This led to whole genome sequencing, which showed a similar relationship between all 3 cases, despite lack of epidemiological links.
        - More cases were found in December 2022 and January 2023.
            - Contaminated products were determined in February 2023, resulting in HAN notification.
            - Total case count = 7 in May 2023
        - As of June 2023, two more cases brought case count to 9 and another point prevalence survey is scheduled
    - We couldn't have done this investigation without UPHL and the whole genome sequencing — this demonstrates the importance of labs submitted isolates and lab compliance for submission.
        - We couldn't have put the pieces of this outbreak together without the genomic link.
            - This is the second outbreak in the last few years that Utah helped identify — the bariatric medical tourism outbreak

Subcommittee Outcomes

1. AR testing practices in Utah labs

Situational Awareness

- Main organisms that we have seen in recent months
    - CRAB: We screen as needed.
    - C. auris: To date, there has not been any in-state transmission
    - VIM-CRPA: We are continuing to see some VIM-CRPA cases related to the eye-drop outbreak.

Open discussion

- Dr. Mayer mentioned the desire to simplify the interfacility transfer form, related to the VIM outbreak, as they had a patient admitted 3 separate times, but the hospital remained unaware of the infection.
    - For the healthcare systems, when UPHL tests specimens and sends the results back to ARUP, EPIC doesn't reflect the test results in the electronic health record.
        - They also do testing at ARUP so that they have an internal record of the test results.
            - hen test results come from UPHL, it is also useful to know if it is a CLIA-validated test, so they know if it needs to be added to the EMR
                - And even then, only ID doctors and knowledgeable infection preventionists will know what to do with that information.

Convene

- This subcommittee meets every eight weeks

Minutes will be posted to the HAI website and will be sent out on Monday

- https://epi.health.utah.gov/uhip-governance-minutes/

Next Meeting Discussion/Questions

-

Next Meeting: Sept 21, 2023