Methods. rtPCR test positivity rate and turnaround time were determined among 89 specimens tested at CDC from 54 outbreak patients with suspected psittacosis. rtPCR testing was performed on nucleic acid extracted from clinical specimens using oligonucleotides targeting the C. psittaci locus tag CPSIT_RS01985. Clinical information was collected by patient interview and medical record review.

Results. Positivity rates among the most common specimen types were 4.4% (2/46) for nasopharyngeal (NP) swab, 36.4% (8/22) for sputum, and 80.0% (4/5) for stool. Of 21 (24%) specimens with available data, the average time from patient symptom onset to specimen collection was 6 days (range 1–11 days). C. psittaci was detected in specimens from 13 of 54 outbreak patients that were tested; 13 patients had radiographically-confirmed pneumonia, and 7 were rtPCR-positive from a lower respiratory specimen only. Paired sputum and NP swab specimens were tested for 6 patients; C. psittaci was detected in all sputum but only 1 NP swab. The positive NP swab was from a patient paying intensive care unit admission and intubation. All results were reported within 1 business day of specimen receipt in the lab.

Conclusion. These data suggest that lower respiratory specimens are more sensitive than NP swabs for rtPCR detection of C. psittaci; stool might be a suitable alternative. Widespread implementation of rtPCR testing using appropriate specimen types could improve psittacosis detection and inform timely public health interventions.

| TABLE 1. Qualitative and cycle threshold (CT) results for outbreak patients with rtPCR detection of C. psittaci |
|---|---|---|---|---|---|---|
| Patient | Upper Respi. | Lower Respi. | Gastrointestinal | Sputum | Bronchoalveolar | Image | NP Swab |
| 1 | Pos (26) | | | | | Neg | |
| 2 | Pos (30) | | | | | Neg | |
| 3 | Pos (30) | | | | | Pos (37) |
| 4 | Pos (26) | | | | | Neg |
| 5 | Pos (28) | | | | | Neg |
| 6 | Pos (27) | | | Pos (33) | | |
| 7 | Pos (28) | | | Pos (32) |
| 8 | Pos (30) | | | Pos (30) |
| 9 | Pos (10) | | | Pos (11) |
| 10 | Neg | | | |
| 11 | Neg | | | Pos (38) |
| 12 | Neg | | | Pos (31) |
| 13 | Neg | | | Pos (32) |

* Average Ct values for triplicate rtPCR tests are shown in parentheses.

* Second NP collected 3 days later was negative.

Disclosures. All authors: No reported disclosures.

2176. A New Rapid Test for Detection of The Cefazolin Inoculum Effect (CIE) in Methicillin-Susceptible Staphylococcus Aureus (MSSA)

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Background. Rapid diagnostic testing for the management of bloodstream infections has become paramount to improving patient outcomes. The primary objective of this study was to assess the differences between 2 FDA approved instruments.

Methods. Retrospective study from August 2018 to April 2019 at the University of Maryland Medical Center. One positive blood culture from each patient was tested using the Verigene® blood culture Gram-positive (BC-GP) or Gram-negative (BC-GN) panels based on the Gram stain and then analyzed using the ePlex® Blood Culture Identification (BCID) Gram-positive (BCID-GP) or Gram-negative (BCID-GN) research use-only panels and compared with culture results.

Results. The study consisted of 140 positive blood culture bottles. 14 bottles were excluded for a total of 55 GN and 71 GP bottles. Of the 55 GN bottles, 3 had 2 GN rods for a total of 58 GN rods. BCID-GN missed 1 P. aeruginosa, 2 S. maltophilia, and 1 E. coli for a 93% (53/57) positive agreement. The BCID-GN does not detect A. junii and therefore it was excluded. BC-GN did not identify 1 K. pneumoniae with a 98% (47/48) positive agreement. BC-GN does not include the detection of S. maltophilia (4), Serratia (4), Morganella (1), and R. fragilis (1) these were excluded in the BC-GN analysis. CTX-M was the only resistant marker detected and both panels identified it correctly. 5 samples using the BCID-GN and the BCID-GP were detected Pan Gram-Positive: 3 grew GP organisms, the other 2 only grew E. coli. Of the 71 GP bottles, 3 had 2 GP bacteria totaling 74 GPs. BCID-GP missed 1 S. aureus, 1 invalid, and called an A. junii that was not identified by the reference method for a 99% (72/73) positive agreement. BC-GP does not detect Micrococcus (6) or E. gallinarum (1) and missed 1 S. miticidei for a 99% (66/67) positive agreement. 18 samples were positive for mecA detected by both panels. 4 samples were vanA/B positive. 1 by BC-GP was sensitive to vancomycin and not detected by BC-GP. BCID-GP detected 1 sample as Pan Gram-negative although a GNR was not detected.

Conclusions. Both the ePlex® and ePlex® GP and GN panels have a high percent positive agreement. Laboratories should take into consideration the epidemiology of their bloodstream infections when deciding on panels for the rapid detection of bloodstream infections.

Disclosures. All authors: No reported disclosures.