**ABSTRACT**

**Objective:** *Candida auris* is a newly emerged multi-drug-resistant organism associated with nosocomial outbreaks. Older identification systems risk misidentifying *C. auris* isolates. A case of *C. auris* candidemia with concomitant *C. lusitaniae* candidemia based on identifications using VitekMS (IVD knowledge base (KB) 3.0) (bioMérieux) was identified in our laboratory. Re-identification of the *C. lusitaniae* isolate using VitekMS (IVD KB 3.2) confirmed the *C. lusitaniae* isolate was a misidentified *C. auris*. *C. lusitaniae* has not previously been documented as being a possibly misidentified species using the VitekMS. To confirm that other non-*auris* *Candida* isolates were not misidentified *C. auris*, a retrospective review was completed.

**Methods:** All archived *Candida* isolates between 1999 and 2019 identified in our laboratory information system and the VitekMS database were reviewed for species identified, by Public Health Ontario (PHO) and the U.S. Centers for Disease Control (CDC), as being possibly misidentified *C. auris* regardless of methodology. Isolates were subcultured twice onto sheep blood agar from -80°C and then re-identified using the VitekMS (IVD KB 3.2).

**Results:** Of the 248 isolates tested, three isolates were identified as *C. auris* using VitekMS (IVD KB 3.2). All three were from the original index patient. Two had no identification using VitekMS (IVD KB 3.0) and were identified in real-time at PHO and the third had an initial low identification as *C. haemulonii* but was identified as *C. lusitaniae* with 99.9% confidence upon refiring using IVD KB 3.0. Confirmation of its identification as *C. auris* was completed at PHO.

**Conclusions:** VitekMS users should be aware that the IVD KB 3.0 has the potential to have misidentified *C. auris* as *C. lusitaniae*. It is reassuring that our retrospective review did not detect other cases in which this misidentification occurred. VitekMS users should consider completing retrospective reviews of their own archived isolates.

**INTRODUCTION**

*Candida auris* is a newly emerged multi-drug-resistant organism associated with nosocomial outbreaks. Older identification systems risk misidentifying *C. auris* isolates. A case of *C. auris* candidemia with concomitant *C. lusitaniae* candidemia based on identifications using VitekMS (IVD knowledge base (KB) 3.0) (bioMérieux) was identified in our laboratory. Re-identification of the *C. lusitaniae* isolate using VitekMS (IVD KB 3.2) confirmed the *C. lusitaniae* isolate was a misidentified *C. auris*. *C. lusitaniae* has not previously been documented as being a possibly misidentified species using the VitekMS. To confirm that other non-*auris* *Candida* isolates were not misidentified *C. auris*, a retrospective review was completed.

**METHODS**

All archived *Candida* isolates between 1999 and 2019 identified in our laboratory information system and the VitekMS database were reviewed for species identified, by Public Health Ontario (PHO) and the U.S. Centers for Disease Control (CDC), as being possibly misidentified *C. auris* regardless of methodology. Isolates were subcultured twice onto sheep blood agar from -80°C and then re-identified using the VitekMS (IVD KB 3.2).

**RESULTS**

Of the 248 isolates tested (154 *C. parapsilosis*, 36 *C. lusitaniae*, 24 *C. guillermondii*, 12 *C. albicans*, 8 *C. glabrata*, 2, *C. haemulonii*, and 12 other)*, three isolates were identified as *C. auris* using VitekMS (IVD KB 3.2). All three were from the original index patient. Two had no identification using VitekMS (IVD KB 3.0) and were identified in real-time at Public Health Ontario and the third had an initial low identification as *C. haemulonii* but was identified as *C. lusitaniae* with 99.9% confidence upon refiring using IVD KB 3.0. Confirmation of its identification as *C. auris* was completed at Public Health Ontario.

* Only pre-2012 isolates were tested in entirety and from 2012 to 2019 only random isolates were re-identified given the high volume of isolates

**DISCUSSION & CONCLUSION**

VitekMS users should be aware that the IVD KB 3.0 has the potential to have misidentified *C. auris* as *C. lusitaniae*. It is reassuring that our retrospective review did not detect other cases in which this misidentification occurred. VitekMS users should consider completing retrospective reviews of their own archived isolates.

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