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## The response to the emergence of *Candida auris* within England

Rebecca Guy\*<sup>1</sup>, Louise Bishop<sup>1</sup>, Andrew Borman<sup>2</sup>, Daniele Curtis<sup>1</sup>, Yimmy Chow<sup>1</sup>, Sarah Gerver<sup>1</sup>, Anne Hall<sup>3</sup>, Clare Humphreys<sup>1</sup>, Katie Jeffery<sup>4</sup>, Elizabeth Johnson<sup>2</sup>, Rohini Manuel<sup>1</sup>, Ginny Moore<sup>1</sup>, Berit Muller-Pebody<sup>1</sup>, Fiona Neely<sup>1</sup>, Bharat Patel<sup>1</sup>, Silke Schelenz<sup>3</sup>, James Sedwick<sup>1</sup>, Surabhi Taori<sup>5</sup>, Deborah Turbitt<sup>1</sup>, Colin Brown<sup>6</sup>

<sup>1</sup>*Public Health England*

<sup>2</sup>*Public Health England; Mycology Reference Laboratory and National Collection of Pathogenic Fungi*

<sup>3</sup>*Brompton & Harefield NHS Foundation Trust*

<sup>4</sup>*Oxford University Hospitals NHS Trust*

<sup>5</sup>*Kings College Hospital NHS Foundation Trust*

<sup>6</sup>*Public Health England; National Infection Service*

**Background:** *Candida auris* is an emerging, often multi-drug resistant fungal pathogen, increasingly recognised globally as a cause of nosocomial outbreaks with potential for high case fatality. In England, sporadic *C. auris* cases were reported between 2013 and 2014. A National Incident Management Team was convened in June 2016 following one large hospital outbreak and increasing sporadic cases. We present the latest state of knowledge from the first European country to report *C. auris*.

**Material/methods:** Patient level demographics, antifungal susceptibility, and strain typing of *C. auris* detections from January 2015 to mid-November 2016 were reviewed. Thirty-day mortality was assessed in those with sufficient follow-up available. Hospitals were assigned according to patient first detection reported. Environmental and skin decontamination products were evaluated.

**Results:** Eight hospitals in England reported 124 patient detections of *C. auris*; three reported transmission between patients. Ten additional hospitals admitted known colonised patients. There were 45 clinical infections including 20 candidaemias. Skin was the most frequently detected site of carriage. Thirty-day all-cause fatality within clinical *C. auris* detections was 38%. National strain typing identified three geographic clades, with possible distinct subgroups. Most isolates were resistant to fluconazole (99%), with reduced susceptibility to echinocandins (18%) and amphotericin (20%). National guidance on infection prevention and control (IPC), clinical management, screening, contact tracing, patient notification, and diagnostic recommendations were published. A one-site descriptive epidemiological analysis investigated transmission dynamics and risk factors for infection and colonisation (F, Table). At in-use concentration all disinfectant products were yeasticidal against test strains.

**Table. Number of *C. auris* detections, mortality, and strain type by hospital group within the UK, January 2015-mid November 2016**

Hospital	Number of Cases		Death within 30 days†	Strain 'type'	Reduced Susceptibility			
	Infection	Colonisation			Fluconazole (n=76)	Voriconazole (n=76)	Amphotericin (n=76)	Echinocandin (n=74)
A	3	2	75%	i, ii	100%	25%	25%	0%
B	1	0	0%	i	100%	0%	0%	100%
C	8	12	18%	i	94%	63%	38%	19%
D	1	0	-	i	100%	100%	0%	0%
E	8	16	0%	ii	100%	70%	5%	0%
F	21	49	22%	i	100%	38%	19%	28%
G	2	0	0%	i	100%	0%	50%	0%
H	1	0	0%	i	-	-	-	-
UK	45	79	21%		99%	50%	20%	18%
i, Indian, ii, South African †(n=78)								

**Conclusions:** The evolving picture of *C. auris* colonisation and infection, with increasing nosocomial outbreaks and IPC challenges, highlight the complex nature of national infectious disease management for an emerging pathogen. Affected hospitals are collaboratively investigating transmission dynamics and carriage, and a national survey is planned to ascertain point-prevalence in intensive care populations. Ongoing efforts will inform understanding of pathogenesis and optimal clinical and public health measures for disease control.