

1 **TABLE 1** *Candida glabrata* isolates (N34) having known genotypic, phenotypic, or clinical resistance to echinocandins, matched by year of recovery
 2 to *C. glabrata* blood isolates (N=34) without known resistance

<i>C. glabrata</i> with FKS1 or FKS2 mutations or phenotypic or clinical resistance							<i>C. glabrata</i> isolate matched by year of recovery					
MIC (µg/ml)						FKS Mutation	MIC (µg/ml)					
FLC	ANF	MCF	CAS	VRC	SCY-078		F	ANF	MCF	CAS	VRC	SCY-078
1	0.03	0.03	≤0.015	≤0.015	1	None	16	0.03	<0.015	0.03	0.5	0.25
4	0.5	0.5	0.12	0.12	0.25	None	8	0.03	≤0.015	≤0.015	0.5	0.25
2	0.25	0.03	0.12	0.12	0.25	None	4	0.03	≤0.015	≤0.015	0.25	0.25
16	0.12	0.25	0.03	0.5	0.25	None	16	0.06	≤0.015	≤0.015	1	0.25
64	0.06	≤0.015	≤0.015	1	0.25	None	16	0.03	≤0.015	≤0.015	0.5	0.25
4	1	1	1	0.12	4	None	8	0.03	≤0.015	≤0.015	0.25	0.25
4	≤0.015	0.12	0.03	0.25	0.25	None	8	0.03	≤0.015	≤0.015	0.12	0.25
16	0.03	≤0.015	≤0.015	0.5	0.5	1-I634V	>128	0.12	0.06	0.12	8	1
8	0.03	≤0.015	≤0.015	0.5	0.5	1-I634V	8	0.03	≤0.015	≤0.015	0.25	0.25
8	0.03	≤0.015	≤0.015	0.5	0.5	1-I634V	4	0.03	≤0.015	≤0.015	0.25	0.5
4	0.03	≤0.015	≤0.015	0.12	0.5	1-I634V	4	0.06	≤0.015	0.03	0.25	0.5
128	0.06	0.06	0.03	4	0.5	1-R631G	>128	0.12	0.06	0.12	16	1
16	1	0.5	1	1	4	1-F625S	16	0.06	≤0.015	0.03	1	0.5
64	1	0.25	1	4	4	1-F625S	128	0.06	≤0.015	≤0.015	4	0.5
128	2	2	16	4	0.5	1-S629P	4	0.06	≤0.015	0.03	0.06	0.5
>128	1	0.25	1	1	2	1-D632E	16	0.12	0.12	0.25	0.5	1
128	1	0.12	0.5	4	1	1-D632E	16	0.03	≤0.015	≤0.015	0.5	0.5
32	0.03	0.03	0.12	1	0.5	2-S663P	4	0.06	≤0.015	0.03	0.25	0.25
>128	2	2	8	4	1	2-S663P	32	0.03	≤0.015	≤0.015	1	0.25
4	2	2	8	0.25	0.5	2-S663P	16	0.06	≤0.015	≤0.015	0.5	0.25
32	0.25	1	0.25	2	0.25	2-S663P	128	0.06	0.03	0.03	4	0.5
>128	4	4	16	8	2	2-S663P	8	0.03	≤0.015	0.03	0.5	0.5
16	2	2	4	0.25	0.5	2-S663P	>128	0.06	0.06	0.06	4	0.25
4	2	1	1	0.5	0.5	2-S663P	4	0.06	0.03	0.06	0.5	0.5
8	1	0.25	0.5	0.25	0.25	2-S663F	8	0.03	≤0.015	≤0.015	0.25	0.25
16	0.12	0.25	0.5	4	0.5	2-R665G	4	0.06	≤0.015	0.03	1	0.25
128	0.06	0.12	0.25	4	0.25	2-R665S	16	0.06	≤0.015	≤0.015	0.5	0.25
8	0.25	0.06	0.5	0.5	0.25	2-P667T	8	0.12	≤0.015	0.06	0.5	0.5

32	0.5	0.03	2	1	4	2-F659V	8	0.06	≤0.015	≤0.015	0.5	0.5
16	0.5	0.06	1	0.5	4	2-F659V	16	0.03	≤0.015	≤0.015	0.5	0.5
8	0.06	≤0.015	0.03	0.25	1	2-I1379V	128	0.03	0.03	0.03	2	0.5
4	0.03	≤0.015	≤0.015	0.12	0.5	2-I1379V	4	≤0.015	≤0.015	≤0.015	0.12	0.5
4	1	1	2	0.25	4	2-delF658	32	0.06	≤0.015	≤0.015	1	0.5
8	2	4	>16	0.12	1	Not tested	4	0.03	≤0.015	0.03	0.25	0.25

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4 Non-susceptible (intermediate or resistant) echinocandin results are highlighted; the “susceptible” breakpoint for ANF and CAS is ≤0.12µg/ml, and ≤0.06µg/ml
5 for MCF; there is no voriconazole breakpoint for *C. glabrata*; for FLC, MICs of ≤32µg/ml and ≥64µg/mL are considered susceptible dose-dependent and
6 resistant, respectively, for *C. glabrata*.

7 Caspofungin (CAS), Fluconazole (FLC), micafungin (MCF), anidulafungin (ANF), voriconazole (VRC).

8 All drugs were tested via Clinical Laboratory Standards Institute broth microdilution method within concentrations ranging from 0.015µg/ml to 16µg/ml, except
9 for fluconazole which ranged in concentration from 0.125µg/ml to 128µg/ml.

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TABLE 2 MIC results and summary statistics for non-*glabrata* *Candida* isolates having known genotypic, phenotypic or clinical resistance

<i>Candida</i> species	MIC (µg/ml)						FKS Mutation
	FLC	ANF	MCF	CAS	VRC	SCY-078	
<i>Candida parapsilosis</i>	0.5	4	2	0.25	≤0.015	0.5	None
<i>Candida parapsilosis</i>	4	2	2	0.5	0.12	0.5	None
<i>Candida parapsilosis</i>	0.5	2	1	0.25	0.03	0.5	None
<i>Candida parapsilosis</i>	1	1	0.5	0.06	0.12	0.25	None
<i>Candida parapsilosis</i>	8	1	0.5	0.12	0.06	0.5	None
<i>Candida parapsilosis</i>	1	0.5	0.5	0.12	≤0.015	0.12	None
<i>Candida tropicalis</i>	0.5	≤0.015	0.03	<0.015	0.03	0.06	None
<i>Candida tropicalis</i>	64	0.5	1	2	0.03	0.25	1-S645S/P
<i>Candida albicans</i>	0.25	≤0.015	≤0.015	≤0.015	4	0.06	Not tested
<i>Candida krusei</i>	32	0.03	0.12	0.12	0.25	0.5	1-H675H/Q
Summary Statistics							
	GEOMETRIC MEAN	2	0.34	0.34	0.13	0.07	0.24
	MODE	0.5	2	0.5	0.12	0.03	0.5
	MEDIAN	1	0.75	0.5	0.12	0.05	0.37

Caspofungin (CAS), Fluconazole (FLC), micafungin (MCF), anidulafungin (ANF), voriconazole (VRC).

Non-susceptible (intermediate or resistant) echinocandin MIC results are highlighted; *Candida krusei* is considered intrinsically resistant to FLC.

All drugs were tested via Clinical Laboratory Standards Institute broth microdilution method within concentrations ranging from 0.015µg/mL to 16µg/ml, except for fluconazole which ranged in concentration from 0.125µg/ml to 128µg/ml.

TABLE 3 MIC results for 101 consecutive *Candida* isolates recovered from blood in 2013

Species	MIC ($\mu\text{g/ml}$)					
	FLC	ANF	MCF	CAS	VRC	SCY-078
<i>Candida albicans</i>	16	0.03	0.03	0.03	0.06	0.06
<i>Candida albicans</i>	0.25	≤ 0.015	≤ 0.015	≤ 0.015	0.12	0.06
<i>Candida albicans</i>	0.5	≤ 0.015	≤ 0.015	≤ 0.015	≤ 0.015	0.12
<i>Candida albicans</i>	0.25	0.03	≤ 0.015	≤ 0.015	>16	0.12
<i>Candida albicans</i>	>128	0.06	0.06	0.06	>16	0.25
<i>Candida albicans</i>	0.5	≤ 0.015	≤ 0.015	≤ 0.015	0.06	0.06
<i>Candida albicans</i>	0.25	≤ 0.015	≤ 0.015	≤ 0.015	0.03	0.12
<i>Candida albicans</i>	0.25	≤ 0.015	≤ 0.015	≤ 0.015	≤ 0.015	0.12
<i>Candida albicans</i>	0.5	≤ 0.015	≤ 0.015	≤ 0.015	≤ 0.015	0.06
<i>Candida albicans</i>	0.5	1	1	0.5	0.03	0.25
<i>Candida albicans</i>	8	≤ 0.015	≤ 0.015	≤ 0.015	1	0.06
<i>Candida albicans</i>	1	≤ 0.015	0.06	0.06	0.03	0.12
<i>Candida albicans</i>	0.25	≤ 0.015	≤ 0.015	≤ 0.015	≤ 0.015	0.06
<i>Candida albicans</i>	0.125	≤ 0.015	0.03	<0.015	<0.015	0.06
<i>Candida albicans</i>	0.5	≤ 0.015	0.03	0.03	<0.015	0.06
<i>Candida albicans</i>	0.5	≤ 0.015	≤ 0.015	≤ 0.015	0.25	0.06
<i>Candida albicans</i>	2	≤ 0.015	≤ 0.015	≤ 0.015	0.06	0.06
<i>Candida albicans</i>	0.25	≤ 0.015	≤ 0.015	≤ 0.015	0.03	0.06
<i>Candida albicans</i>	>128	≤ 0.015	≤ 0.015	≤ 0.015	0.06	0.12
<i>Candida albicans</i>	8	≤ 0.015	≤ 0.015	≤ 0.015	<0.015	0.12
<i>Candida albicans</i>	>128	≤ 0.015	≤ 0.015	≤ 0.015	<0.015	0.06
<i>Candida albicans</i>	4	≤ 0.015	≤ 0.015	≤ 0.015	>16	0.06
<i>Candida albicans</i>	<0.125	≤ 0.015	≤ 0.015	≤ 0.015	0.03	0.06
<i>Candida albicans</i>	0.25	≤ 0.015	≤ 0.015	≤ 0.015	>16	0.06
<i>Candida albicans</i>	16	0.06	0.03	0.03	≤ 0.015	0.12
<i>Candida albicans</i>	>128	≤ 0.015	≤ 0.015	≤ 0.015	≤ 0.015	0.06
<i>Candida albicans</i>	4	≤ 0.015	≤ 0.015	≤ 0.015	0.06	0.06
<i>Candida albicans</i>	1	≤ 0.015	≤ 0.015	≤ 0.015	0.5	0.06
<i>Candida albicans</i>	0.5	≤ 0.015	≤ 0.015	≤ 0.015	0.5	0.06
<i>Candida albicans</i>	0.5	≤ 0.015	≤ 0.015	≤ 0.015	0.03	0.12
<i>Candida albicans</i>	0.25	0.03	0.06	0.06	≤ 0.015	0.12
<i>Candida albicans</i>	2	0.03	0.03	≤ 0.015	≤ 0.015	0.06
<i>Candida albicans</i>	0.25	≤ 0.015	≤ 0.015	≤ 0.015	≤ 0.015	0.06
<i>Candida dubliniensis/albicans</i>	0.25	≤ 0.015	≤ 0.015	≤ 0.015	≤ 0.015	0.12
<i>Candida dubliniensis/albicans</i>	0.25	0.03	0.03	≤ 0.015	≤ 0.015	0.12
<i>Candida dubliniensis/albicans</i>	0.25	≤ 0.015	0.03	≤ 0.015	≤ 0.015	0.12

<i>Candida dubliniensis/albicans</i>	0.25	≤0.015	0.03	≤0.015	≤0.015	0.12
<i>Candida dubliniensis/albicans</i>	<0.125	≤0.015	0.03	0.03	≤0.015	0.12
<i>Candida glabrata</i>	2	0.06	≤0.015	0.06	1	0.5
<i>Candida glabrata</i>	16	0.03	≤0.015	≤0.015	0.25	0.25
<i>Candida glabrata</i>	8	0.03	≤0.015	≤0.015	0.12	0.25
<i>Candida glabrata</i>	64	0.03	≤0.015	≤0.015	1	0.25
<i>Candida glabrata</i>	64	0.03	≤0.015	≤0.015	1	0.25
<i>Candida glabrata</i>	8	0.12	≤0.015	0.03	0.25	1
<i>Candida glabrata</i>	8	0.06	≤0.015	≤0.015	0.25	0.25
<i>Candida glabrata</i>	4	0.03	≤0.015	≤0.015	0.12	0.25
<i>Candida glabrata</i>	2	0.03	≤0.015	≤0.015	0.03	0.25
<i>Candida glabrata</i>	8	0.06	≤0.015	≤0.015	0.25	0.25
<i>Candida glabrata</i>	4	0.06	≤0.015	0.03	0.12	1
<i>Candida glabrata</i>	4	0.03	≤0.015	≤0.015	0.06	0.25
<i>Candida glabrata</i>	64	0.03	≤0.015	≤0.015	1	0.25
<i>Candida glabrata</i>	32	1	0.5	0.5	1	1
<i>Candida glabrata</i>	16	0.03	≤0.015	≤0.015	0.5	0.25
<i>Candida glabrata</i>	16	0.06	≤0.015	≤0.015	0.5	0.5
<i>Candida glabrata</i>	4	0.03	≤0.015	0.03	0.25	0.25
<i>Candida glabrata</i>	>128	0.06	≤0.015	≤0.015	8	0.5
<i>Candida glabrata</i>	8	0.03	≤0.015	0.03	0.25	0.5
<i>Candida glabrata</i>	8	0.03	≤0.015	0.03	0.25	0.5
<i>Candida glabrata</i>	16	0.03	≤0.015	≤0.015	0.25	0.25
<i>Candida glabrata</i>	8	0.06	≤0.015	0.03	0.12	0.5
<i>Candida glabrata</i>	4	0.03	≤0.015	0.03	0.12	0.25
<i>Candida krusei</i>	64	0.03	0.12	0.12	0.5	1
<i>Candida krusei</i>	64	0.25	0.25	0.5	0.5	4
<i>Candida krusei</i>	32	0.03	0.12	0.06	0.5	0.5
<i>Candida krusei</i>	128	0.03	0.12	0.12	1	1
<i>Candida krusei</i>	128	0.03	0.03	0.06	1	0.5
<i>Candida krusei</i>	64	0.03	0.06	0.06	0.5	0.5
<i>Candida parapsilosis</i>	0.5	2	2	0.5	≤0.015	0.5
<i>Candida parapsilosis</i>	0.25	2	2	0.5	≤0.015	0.5
<i>Candida parapsilosis</i>	0.25	1	0.05	0.12	≤0.015	0.25
<i>Candida parapsilosis</i>	1	1	2	0.12	0.03	0.25
<i>Candida parapsilosis</i>	0.5	1	1	0.25	0.03	0.25
<i>Candida parapsilosis</i>	2	2	2	0.5	0.12	0.25
<i>Candida parapsilosis</i>	1	1	2	0.25	0.06	0.25
<i>Candida parapsilosis</i>	4	1	1	0.25	≤0.015	0.25
<i>Candida parapsilosis</i>	0.5	0.5	0.5	0.12	0.03	0.25
<i>Candida parapsilosis</i>	0.5	1	1	0.25	0.03	0.25

<i>Candida parapsilosis</i>	0.5	2	2	0.25	≤0.015	0.25
<i>Candida parapsilosis</i>	0.5	2	2	0.25	≤0.015	0.25
<i>Candida parapsilosis</i>	1	0.5	1	0.25	0.03	0.25
<i>Candida parapsilosis</i>	2	0.5	0.5	0.25	0.06	0.25
<i>Candida parapsilosis</i>	1	0.5	0.5	0.06	0.06	0.25
<i>Candida parapsilosis</i>	1	0.06	1	0.25	0.03	0.25
<i>Candida parapsilosis</i>	1	2	1	0.12	0.03	0.25
<i>Candida parapsilosis</i>	1	1	2	0.25	0.03	0.25
<i>Candida parapsilosis</i>	1	1	0.5	0.25	≤0.015	0.25
<i>Candida tropicalis</i>	0.25	≤0.015	≤0.015	≤0.015	0.03	0.03
<i>Candida tropicalis</i>	0.5	≤0.015	0.06	0.06	0.15	0.25
<i>Candida tropicalis</i>	1	≤0.015	0.03	<0.015	≤0.015	0.06
<i>Candida tropicalis</i>	0.5	≤0.015	≤0.015	≤0.015	0.06	0.12
<i>Candida tropicalis</i>	0.5	≤0.015	≤0.015	≤0.015	0.06	0.5
<i>Candida tropicalis</i>	0.5	≤0.015	0.06	0.03	≤0.015	0.12
<i>Candida tropicalis</i>	1	≤0.015	≤0.015	≤0.015	0.06	0.12
<i>Candida tropicalis</i>	0.25	≤0.015	≤0.015	≤0.015	≤0.015	0.03
<i>Candida tropicalis</i>	0.25	≤0.015	≤0.015	≤0.015	0.03	0.06
<i>Candida tropicalis</i>	1	≤0.015	≤0.015	≤0.015	0.06	0.12
<i>Candida tropicalis</i>	1	≤0.015	≤0.015	≤0.015	0.06	0.12
<i>Candida tropicalis</i>	0.5	≤0.015	0.03	≤0.015	0.03	0.12
<i>Candida lusitanae</i>	0.5	0.25	0.25	0.25	≤0.015	2
<i>Candida lusitanae</i>	2	0.12	0.12	0.12	≤0.015	1
<i>Candida lusitanae</i>	1	0.12	0.12	0.12	≤0.015	2

Highlighted values indicate a non-susceptible (intermediate or resistant) MIC; the “susceptible” breakpoint for ANF and CAS is ≤0.12µg/ml, and ≤0.06µg/ml for MCF; there are no VRC breakpoints for *C. glabrata*; for *Candida lusitanae* there are no breakpoints for any antifungal agent; for *C. glabrata* a FLC MIC ≤32µg/ml is considered susceptible dose-dependent and ≥64µg/ml is considered resistant; *Candida krusei* is considered intrinsically resistant to FLC.

Caspofungin (CAS), Fluconazole (FLC), micafungin (MCF), anidulafungin (ANF), voriconazole (VRC).

Isolates listed as *Candida dubliniensis/albicans* were not further identified.

All drugs were tested via Clinical Laboratory Standards Institute broth microdilution method within concentrations ranging from 0.015µg/mL to 16µg/ml, except for fluconazole which ranged in concentration from 0.125µg/ml to 128µg/ml.