



Figure S1. MIC distributions of *C. glabrata* (left) and *C. albicans* (right) isolates with $\geq 5/6$ or $\geq 6/7$ identical MLST alleles respectively (in mg/L). White bars are blood isolates, grey bars are oral isolates obtained after <7 days exposure to either azoles or echinocandins and black bars are oral isolates obtained after ≥ 7 days exposure to either drug class. Each row displays the MIC distributions of fluconazole (top) and anidulafungin (bottom). y-axis indicate number of isolates either from blood (positive) or from oral swabs (negative).

Supplementary Table S1. MLST overview. Paired isolates where the same species was found in blood and subsequent oral isolates from the same patient.

<i>Candida</i> sp.	Study ID	MLST profiles		EUCAST/E-test MICs (mg/L)				EUCAST/E-test MICs (mg/L)				Treatment days		
		Blood	Oral	Blood				Oral				Drug-class		
		[allele no.]	[allele no.]	FLU	VRC	ANI	AMB	FLU	VRC	ANI	AMB	AZ	EC	PO
Resistant oral <i>C. albicans</i> isolates (N=3/45)														
<i>C. albicans</i>	168	35,4,4,4,4,26,4	35,4,14,4,4,26,4	≤0.125	≤0.03	0.015	0.25	32	4	0.015	0.5	16	1	
<i>C. albicans</i>	76 ^M	21,26,14,9,72,102,84	21,26,14,9,72,102,84	≤0.125	≤0.03	0.03	0.25	≤0.125	≤0.03	0.03^{F641L}	0.5		28	
<i>C. albicans</i>	71 ^{**}	43,14,6,4,7,10,8	43,14,6,4,7,10,8	≤0.125	≤0.03	0.03	0.5	≤0.125	≤0.03	0.125^{D648V}	0.5		16	
Blood and oral <i>C. albicans</i> isolates with equivalent susceptibility (N=35/45)				FLU	VRC	ANI	AMB	FLU	VRC	ANI	AMB	AZ	EC	PO
<i>C. albicans</i>	142	21,26,14,9,72,102,84	21,26,14,9,72,102,84	≤0.125	≤0.03	0.015	0.25	0.25	≤0.03	≤0.008	0.25	39		
<i>C. albicans</i>	102 ^M	21,26,14,9,72,102,84	21,26,14,9,72,102,84	≤0.125	≤0.03	≤0.008	0.5	≤0.125	≤0.03	0.015	0.5	14		
<i>C. albicans</i>	76 ^M	21,26,14,9,72,102,84	21,26,14,9,72,102,84	≤0.125	≤0.03	0.03	0.25	≤0.125	≤0.03	≤0.008	0.25		28	
<i>C. albicans</i>	170	21,26,14,18,72,102,84	21,26,14,18,72,102,84	≤0.125	≤0.03	≤0.008	0.5	≤0.125	≤0.03	≤0.008	0.5	14	3	
<i>C. albicans</i>	75	21,26,14,18,72,102,84	21,26,14,18,72,102,84	≤0.125	≤0.03	≤0.008	0.25	≤0.125	≤0.03	0.03	0.5	16		
<i>C. albicans</i>	138	21,17,21,19,27,83,22	21,17,21,19,27,83,22	≤0.125	≤0.03	0.015	0.25	0.25	≤0.03	0.015	0.5		13 10	
<i>C. albicans</i>	57	2,2,2,2,2,6,5	2,2,2,2,2,6,5	≤0.125	≤0.03	≤0.008	0.5	≤0.125	≤0.03	0.015	0.5	21	1	
<i>C. albicans</i>	169	2,2,5,2,2,6,49	2,2,5,2,2,6,49	0.25	≤0.03	≤0.008	0.5	0.25	≤0.03	0.015	0.5	14	8 8	
<i>C. albicans</i>	198	2,5,5,2,2,6,63	2,5,5,2,2,6,63	0.25	≤0.03	≤0.008	0.5	0.25	≤0.03	≤0.008	0.5	14		
<i>C. albicans</i>	116	2,2,6,2,2,6,12	2,2,6,2,2,20,12	≤0.125	≤0.03	≤0.008	0.25	0.25	≤0.03	0.03	0.25		19	
<i>C. albicans</i>	178	4,7,4,4,49,4,4	4,4,4,4,49,4,4	0.25	≤0.03	0.03	0.25	≤0.125	≤0.03	0.015	0.25	7	5	
<i>C. albicans</i>	157	4,7,4,4,4,24,22	4,7,4,4,4,26,22	≤0.125	≤0.03	≤0.008	0.5	≤0.125	≤0.03	0.015	0.5	16		
<i>C. albicans</i>	44	4,4,17,4,4,26,20	4,4,17,4,4,26,20	0.25	≤0.03	≤0.008	0.25	0.25	≤0.03	≤0.008	0.25	18		
<i>C. albicans</i>	51b*	5,3,39,6,43,69,22	5,3,39,6,43,69,22	≤0.125	≤0.03	≤0.008	0.25	≤0.125	≤0.03	0.015	0.125		22 2	
<i>C. albicans</i>	51a*	5,3,39,6,43,69,22	5,3,39,6,43,69,22	≤0.125	≤0.03	≤0.008	0.25	≤0.125	≤0.03	0.015	0.25	7	5	
<i>C. albicans</i>	29	3,29,6,146,10,83,22	3,29,6,146,10,83,22	0.25	≤0.03	0.015	0.5	0.25	≤0.03	≤0.008	0.25	15		
<i>C. albicans</i>	20	35,7,36,4,4,4,20	35,7,36,4,4,4,20	0.5	≤0.03	≤0.008	0.25	0.25	≤0.03	≤0.008	0.25	15		

<i>C. albicans</i>	134	35,4,36,4,4,26,20	35,7,36,4,4,26,20	≤0.125	≤0.03	0.03	0.5	≤0.125	≤0.03	≤0.008	0.5	17	16	
<i>C. albicans</i>	106	35,7,17,4,88,26,20	35,7,17,4,88,26,20	≤0.125	≤0.03	≤0.008	0.25	≤0.125	≤0.03	≤0.008	0.5	16		
<i>C. albicans</i>	12	35,7,17,4,4,4,20	35,7,17,4,4,4,20	0.25	≤0.03	0.015	0.25	0.25	≤0.03	≤0.008	0.125	13		
<i>C. albicans</i>	45	35,7,4,4,34,35,4	35,7,4,4,34,35,4	0.25	≤0.03	0.015	0.25	0.25	≤0.03	0.015	0.25	28	27	
<i>C. albicans</i>	172	35,4,4,4,4,4	35,4,4,4,4,4	≤0.125	≤0.03	0.03	0.5	≤0.125	≤0.03	≤0.008	0.5		19	
<i>C. albicans</i>	47	13,10,15,6,7,32,15	13,10,15,6,7,32,15	≤0.125	≤0.03	≤0.008	0.25	≤0.125	≤0.03	≤0.008	0.25	22	3 14	
<i>C. albicans</i>	167	13,10,15,6,7,37,15	13,10,15,6,34,37,15	0.25	≤0.03	0.03	0.25	0.25	≤0.03	0.015	0.5		NA	
<i>C. albicans</i>	95	21,8,14,18,102,102,84	21,8,14,18,102,102,84	≤0.125	≤0.03	≤0.008	0.25	≤0.125	≤0.03	0.015	0.5		12	
<i>C. albicans</i>	78	21,8,14,18,72,102,84	21,8,14,18,72,102,84	0.25	≤0.03	0.015	0.25	0.25	≤0.03	0.015	0.25	12	15 6	
<i>C. albicans</i>	130	23,3,5,3,2,100,165	23,3,5,3,2,100,165	≤0.125	≤0.03	0.03	0.5	≤0.125	≤0.03	≤0.008	0.5	10	4	
<i>C. albicans</i>	41	33,14,38,9,78,122,15	33,14,38,9,78,122,15	≤0.125	≤0.03	≤0.008	0.5	≤0.125	≤0.03	≤0.008	0.25	14	10	
<i>C. albicans</i>	66	43,14,8,4,34,3,8	43,14,8,4,34,3,8	≤0.125	≤0.03	0.015	0.25	≤0.125	≤0.03	0.015	0.25		NA	
<i>C. albicans</i>	193	59,3,6,2,80,108,15	59,3,6,2,80,108,15	≤0.125	≤0.03	0.015	0.25	≤0.125	≤0.03	0.015	0.25	2	11 14	
<i>C. albicans</i>	108	62,12,21,1,6,4,4	62,12,21,1,6,4,4	≤0.125	≤0.03	≤0.008	0.25	≤0.125	≤0.03	≤0.008	0.5	10	9	
<i>C. albicans</i>	166	80,3,6,144,31,45,13	80,3,6,144,31,45,13	0.25	≤0.03	≤0.008	0.5	≤0.125	≤0.03	0.015	0.5		20	
<i>C. albicans</i>	186	87,3,6,35,65,157,95	87,3,6,35,65,157,95	≤0.125	≤0.03	0.015	0.5	0.25	≤0.03	≤0.008	0.25	14		
<i>C. albicans</i>	124	102,7,6,3,43,164,148	102,7,6,3,43,164,148	0.25	≤0.03	0.03	0.5	≤0.125	≤0.03	0.015	0.5		7	
<i>C. albicans</i>	117	153,3,21,145,2,126,207	153,3,21,145,2,126,207	0.25	≤0.03	0.015	0.25	0.25	≤0.03	≤0.008	0.5	14		
Unrelated blood and oral <i>C. albicans</i> isolates (N=7/45)				FLU	VRC	ANI	AMB	FLU	VRC	ANI	AMB	AZ	EC	PO
<i>C. albicans</i>	86	2,3,2,2,2,24,5	2,5,6,2,2,24,20	≤0.125	≤0.03	≤0.008	0.5	≤0.125	≤0.03	≤0.008	0.5	22		
<i>C. albicans</i>	27	36,4,17,4,4,26,20	35,4,4,4,195,26,22	≤0.125	≤0.03	0.015	0.25	0.25	≤0.03	0.015	0.25	14		
<i>C. albicans</i>	100	43,14,8,4,7,10,8	35,4,65,4,4,4,20	≤0.125	≤0.03	0.015	0.25	0.25	≤0.03	0.015	0.5	20		
<i>C. albicans</i>	137	2,5,5,2,2,6,97	40,5,6,2,48,213,49	≤0.125	≤0.03	0.015	0.5	1	≤0.03	≤0.008	0.25	15		
<i>C. albicans</i>	151*	62,3,3,3,3,39,95	21,26,14,18,102,102,84	≤0.125	≤0.03	0.015	0.25	≤0.125		0.015	0.5	11		
<i>C. albicans</i>	102 ^M	21,26,14,9,72,102,84	43,14,6,4,7,10*,8	≤0.125	≤0.03	≤0.008	0.5	≤0.125	≤0.03	0.015	0.5	14		
<i>C. albicans</i>	53	21,26,14,147,76,102,84	11,26,6,4,34,60,119	≤0.125	≤0.03	≤0.008	0.25	≤0.125	≤0.03	0.015	0.25	17	3	
Resistant <i>C. glabrata</i> oral isolates (N=18/56) (or >2 2-fold MIC dilution steps difference)				FLU	VRC	ANI	AMB	FLU	VRC	ANI	AMB	AZ	EC	PO

<i>C. glabrata</i>	112 ^M	2,5,35,5,1,2	2,5,35,5,1,2	64	0.5	0.06	0.5	1	≤0.03	0.06	2	20	2	
<i>C. glabrata</i>	112 ^M	2,5,35,5,1,2	2,5,35,5,1,2	64	0.5	0.06	0.5	≥128	2	0.03	1	20	2	
<i>C. glabrata</i>	153	5,7,8,7,3,6	5,7,8,7,3,6	2	≤0.03	0.03	0.5	64	2	0.06	0.5	2	20	
<i>C. glabrata</i>	80	6,6,5,2,3,4	6,6,5,2,3,4	1	≤0.03	0.06	1	64	0.5	0.06	0.5	7	7	
<i>C. glabrata</i>	43	12,4,16,5,1,8	12,4,16,5,1,8	2	≤0.03	0.03	0.06	64	1	0.06	0.06	18		
<i>C. glabrata</i>	122 ^M	19,20,38,NA,17,2	19,20,38,NA,17,2	2	≤0.03	0.03	0.5	≥128	2	0.06	0.25		14	
<i>C. glabrata</i>	184	3,4,4,3,3,4	3,4,4,3,3,4	4	0.125	0.125^{WT}	0.25	4	0.125	0.06	0.125	20		
<i>C. glabrata</i>	18 ^M	2,5,7,5,1,2	2,5,7,5,1,2	4	0.06	0.06	0.5	1	≤0.03	0.125^{WT}	4	4	19	
<i>C. glabrata</i>	40	3,6,22,2,3,9	3,6,22,2,3,9	4	0.06	0.06	0.5	1	≤0.03	0.125^{WT}	1	3	40	7
<i>C. glabrata</i>	58	5,7,8,7,3,6	5,7,8,7,3,6	2	≤0.03	0.06	1	1	≤0.03	0.125^{F659L}	1	14	6	
<i>C. glabrata</i>	15	2,5,7,5,1,2	2,5,7,5,1,2	8	0.125	0.06	1	4	0.125	0.125^{WT}	1	20		
<i>C. glabrata</i>	35	7,5,6,12,1,8	7,5,6,12,1,8	32	0.5	0.06	0.5	64	0.5	0.25^{F659I}	1	14		
<i>C. glabrata</i>	51b*	7,4,3,4,1,3	7,4,3,4,1,3	2	≤0.03	0.03	0.5	4	0.06	0.5^{S663P}	0.5	22	2	
<i>C. glabrata</i>	143 ^M	6,6,5,2,3,4	6,6,5,2,3,4	1	≤0.03	0.015	1	32	0.25	0.5^{F659-DEL}	0.5	10		
<i>C. glabrata</i>	180	5,7,8,7,3,6	5,7,8,7,3,6	32	1	0.03	1	64	2	0.5^{S663P}	0.5	21		
<i>C. glabrata</i>	161 ^M	5,7,8,7,3,6	5,7,8,7,3,6	32	1	0.015	0.5	32	1	1^{S663P}	1	20		
<i>C. glabrata</i>	104	3,4,4,3,3,4	3,4,4,3,3,4	2	≤0.03	0.06	1	32	1	0.06	0.5	4	11	
<i>C. glabrata</i>	99	9,19,10,4,3,2	9,19,10,4,3,2	2	≤0.03	0.015		32	0.5	0.03	0.5	12		
Blood and oral <i>C. glabrata</i> isolates with equivalent susceptibility (N=37/56)				FLU	VRC	ANI	AMB	FLU	VRC	ANI	AMB	AZ	EC	PO
<i>C. glabrata</i>	2	1,2,2,1,2,1	1,2,2,1,2,1	4	0.125	0.03	0.5	2	0.06	0.015	0.5	12		
<i>C. glabrata</i>	49	1,2,2,1,2,1	1,2,2,1,2,1	2	≤0.03	0.06	0.25	2	≤0.03	0.015	0.25	14		
<i>C. glabrata</i>	145	1,2,2,1,1,1	1,2,2,1,1,1	4	0.06	0.03	1	4	0.125	0.015	0.5	5	56	
<i>C. glabrata</i>	136	2,5,35,5,1,2	2,5,35,5,1,2	1	≤0.03	0.06	1	1	≤0.03	0.015	0.5	15		
<i>C. glabrata</i>	39	2,5,7,5,1,2	2,5,7,5,1,2	2	0.06	0.06	1	2	≤0.03	0.03	0.5	8	25	
<i>C. glabrata</i>	98	2,5,7,5,1,2	2,5,7,5,1,2	4	0.06	0.06	1	2	≤0.03	0.06	1	18		
<i>C. glabrata</i>	181	2,5,7,5,1,2	2,5,7,5,1,2	4	0.125	0.06	1	4	0.125	0.06	0.5	13		
<i>C. glabrata</i>	63	2,5,7,5,1,2	2,5,7,5,1,2	2	0.06	0.03	1	2	0.06	0.06	1	7	3	
<i>C. glabrata</i>	18 ^M	2,5,7,5,1,2	2,5,7,5,1,2	4	0.06	0.06	0.5	16	0.25	0.03	0.25	4	19	

<i>C. glabrata</i>	182	2,5,35,5,1,2	2,5,35,5,1,2	4	0.06	0.03	0.25	4	0.125	0.03	0.5	12
<i>C. glabrata</i>	94	3,4,1,3,3,21	3,4,1,3,3,21	2	≤0.03	0.06	1	2	0.06	0.015	1	16
<i>C. glabrata</i>	146	3,4,4,3,3,4	3,4,4,3,3,4	2	0.06	0.03	1	2	0.06	0.03	1	14 26
<i>C. glabrata</i>	96	3,9,26,4,15,4	3,9,26,4,15,4	2	0.06	0.03	NA	1	≤0.03	0.015	0.5	26
<i>C. glabrata</i>	161 ^M	5,7,8,7,3,6	5,7,8,7,3,6	32	1	0.015	0.5	32	1	0.015	1	20
<i>C. glabrata</i>	110	5,7,8,7,3,6	5,7,8,7,3,6	2	≤0.03	0.03	1	2	≤0.03	0.03	1	8
<i>C. glabrata</i>	23	5,7,8,7,3,6	5,7,8,7,3,6	4	0.06	0.06	1	2	≤0.03	0.06	1	14
<i>C. glabrata</i>	154	5,7,8,7,3,6	5,7,8,7,3,6	4	0.125	0.015	0.5	2	0.06	0.06	1	28
<i>C. glabrata</i>	177	5,7,8,7,3,6	5,7,8,7,3,6	4	0.125	0.06	1	4	0.125	0.06	0.5	10
<i>C. glabrata</i>	10	5,7,8,7,3,6	5,7,8,7,3,6	4	0.06	0.03	1	4	0.125	0.03	0.5	18
<i>C. glabrata</i>	151 [*]	5,7,8,7,3,6	5,7,8,7,3,6	4	0.06	0.06	1	4	0.06	0.06	1	11
<i>C. glabrata</i>	158	6,6,5,2,3,4	6,6,5,2,3,4	1	≤0.03	0.03	0.5	2	0.06	0.06	0.5	12
<i>C. glabrata</i>	143 ^M	6,6,5,2,3,4	6,6,5,2,3,4	1	≤0.03	0.015	1	1	≤0.03	0.015	0.5	10
<i>C. glabrata</i>	143 ^M	6,6,5,2,3,4	6,6,5,2,3,4	1	≤0.03	0.015	1	4	0.125	0.015	0.5	10
<i>C. glabrata</i>	28	6,6,5,2,3,22	6,6,5,2,3,22	2	≤0.03	0.03	1	1	≤0.03	0.06	0.5	17
<i>C. glabrata</i>	51a [*]	7,4,3,4,1,3	7,4,3,4,1,3	2	≤0.03	0.06	1	4	0.125	0.06	0.5	7 5
<i>C. glabrata</i>	125	7,5,6,12,1,8	7,5,6,12,1,8	2	0.06	0.03	1	1	0.06	0.06	1	7
<i>C. glabrata</i>	6	7,5,6,12,1,8	7,5,6,12,1,8	2	≤0.03	0.06	0.5	2	0.06	0.03	1	13 3
<i>C. glabrata</i>	56	7,5,6,12,1,8	7,5,6,12,1,8	1	≤0.03	0.015	0.5	1	0.06	0.015	1	25 8
<i>C. glabrata</i>	8	7,5,37,12,1,8	7,5,37,12,1,8	8	0.125	0.015	1	1	0.06	0.015	0.25	15
<i>C. glabrata</i>	174	8,4,3,5,1,2	8,4,3,5,1,2	4	0.125	0.06	0.5	4	0.06	0.06	0.5	12
<i>C. glabrata</i>	71 [*]	8,4,3,5,1,2	8,4,3,5,1,2	2	≤0.03	0.06	1	4	0.125	0.06	0.5	16
<i>C. glabrata</i>	191	8,5,13,9,3,1	8,5,13,9,3,1	4	0.06	0.06	1	4	0.06	0.03	0.25	5 12
<i>C. glabrata</i>	9	9,9,10,4,3,2	9,9,10,4,3,2	8	0.125	0.03	0.5	2	≤0.03	0.015	0.25	18 13
<i>C. glabrata</i>	176	12,4,16,5,1,8	12,4,16,5,1,8	4	0.06	0.06	1	2	0.06	0.06	0.5	2 15
<i>C. glabrata</i>	192	16,9,36,13,14,4	16,9,36,13,14,4	8	0.25	0.06	0.5	32	1	0.06	0.5	5 15
<i>C. glabrata</i>	122 ^M	19,20,38,NA,17,2	19,20,38,NA,17,2	2	≤0.03	0.03	0.5	4	0.06	0.03	0.25	14
<i>C. glabrata</i>	54	26,2,2,1,1,1	26,2,2,1,1,1	2	≤0.03	0.03	0.5	2	0.06	0.06	0.5	3 19

Unrelated blood and oral <i>C. glabrata</i> isolates (N=1/56)				FLU	VRC	ANI	AMB	FLU	VRC	ANI	AMB	AZ	EC	PO
<i>C. glabrata</i>	131	5,7,8,7,3,6	2,5,35,5,1,2	2	0.06	0.03	1	1	≤0.03	0.015	0.5			18
Other <i>Candida</i> species (N=11)				FLU	VRC	ANI	AMB	FLU	VRC	ANI	AMB	AZ	EC	PO
<i>C. dubliniensis</i>	25	1,1,1,1,1,1,1	1,1,1,1,1,1,1	1	≤0.03	0.015	0.03	0.5	≤0.03	0.015	0.03			22
<i>C. tropicalis</i>	109	1,58,4,3,48,1	1,58,4,3,4,3	0.5	≤0.03	0.03	1	2	≤0.03	≤0.008	0.5			30
<i>C. tropicalis</i>	195	3,7,4,10,1,1	3,7,4,10,4,6	≤0.125	≤0.03	0.03	0.5	0.25	≤0.03	0.03	0.25			14
<i>C. tropicalis</i>	96	1,100,4,3,22,1	1,100,4,3,48,1	0.25	0.06	0.03	0.5	≥128***	>4	0.03	0.5			26
<i>C. parapsilosis</i>	107	MLVA-type DK-1	MLVA-type DK-1	0.5	≤0.03	1	0.25	8	0.125	>1	0.5			17
<i>C. krusei</i>	65	4,1,32,4,4,2	4,1,32,4,4,28	16	0.125	0.125^{L701M}	1	128	1	0.125^{L701M}	1	14		13
<i>C. krusei</i>	163	4,27,11,5,2,2	4,27,11,5,2,2	32	0.5	0.125^{L701M}	1.5	32	0.25	0.125^{L701M}	1		14	
<i>C. krusei</i>	103	4,3,32,19,5,11	4,3,32,19,5,11	≥128	2	0.03	0.5	≥128	2	0.06	0.25	8		6
<i>C. krusei</i>	133	3,11,39,5,3,30	3,11,39,5,3,30	16	0.125	0.015	0.5	16	0.125	0.03	0.5	12	15	
<i>S. cerevisiae</i>	79	1,1,1,4,4,1	3,2,1,3,5,1	16	0.5	0.25	0.5	8	0.125	0.06	0.5	12	16	
<i>S. cerevisiae</i>	1	2,2,2,3,3,1	2,2,2,3,3,1	16	0.25	0.06	0.25	16	0.25	0.06	0.5			7

AZ: azole (primarily fluconazole), EC: echinocandin (primarily caspofungin), PO: polyene. NA: not applicable. MLVA: Multiple-Locus Variable number of tandem repeats Analysis. Red numbers indicate different alleles when comparing blood and swab isolates. MIC values above EUCAST breakpoints for resistance are bold and underlined. MIC values elevated >2 2-fold MIC dilutions are bold. Fks profiles are provided as superscript for isolates with anidulafungin MICs above EUCAST breakpoints.

*Patient carried both *C. albicans* and *C. glabrata* in blood and oral swab.

**This patient had two separate *C. glabrata* candidemia cases and in both cases *C. albicans* was found in oral swabs. The second oral isolate was echinocandin resistant.

***Trailing, 50% growth inhibition in entire concentration range.

^MMultiple unique isolates found in oral and paired with initial blood isolate.

Number of *C. albicans* pairs with similar MLST profiles (≥6/7 identical alleles) = 38/45 (84.4%)

Number of *C. glabrata* pairs with similar MLST profiles (≥5/6 identical alleles) = 54/55 (98.2%)

Number of other *Candida* species with similar MLST profiles (≥5/6 identical alleles) = 8/11 (72.7%).

Similar genotype overall: 101 of 112 isolates = 90.2%