

!" #&/
4;O <548G=>3> 70AB>AC20=O ;V:0@AL:>3> 70A>1C

!"

!;:04:
4VNG0 @>5G>28=0: A0=32V@VB@8=;
1 <; @>7G8=C
4>?>28=8: 5B0=>; 96 %, 2>40 >G815=0.

V:0@AL:0 D>@<0. >7G8= 4;O 7>2=VH=L>3> 70AB>AC20=O.
A=>2=V D17?>=EVABV: ?@>7>@0 @V48=0>@0=652>3> .:L>@C 7 70?0E<< A?8@BC.

S0@<0:>B5@0?52B8G=0 3@C?0.
=B8A5?B8G=V B0 457V=D5:FV9=V 70A>18. >4 "" D08A X.

S0@<0:>3>VGV=V 2;0AB82>ABL.
/: ?@>DV:0:B8G=89 70AV1: =>2>=0@>465=8< 4;O 70?>1V30=O 3=V9=>=70?0:L=8E 70E2>@N20=L H:V@8 V EV@C@3VG=8< E2>@8< 4;O ?@>DV:0:B8:8 @0=>2>V V=D5:FVW.
/: ;V:C20:L=89 70AV1: ?@8 V=D5:FV9=>=70?0:L=8E 70E2>@N20=OE H:V@8 B0 A;87>28E>1>|>=>: 10:B5@V0:L=W B0 3@81:>2>W 5BV>=>3VW, 2;:NG0NG8 Candida albicans; C AB*0B>>3VW ?@8 ?@0@>=B8BV, 0DB>7>=>0B8BV, 28@07:2>=>5:@>B8G=>AB><0B8BV B0 V=H8E C@065=OE A;87>2>W >1>|>=>:8 ?>@>6=8=8 @>B0; 2>B>;0@8=3>=>3VW ?@8 0=3V=V, 70E2>@N20=OE A5@54=L>3> 2CE0 B0 7>2=VH=L>3> A;CE>2>3> ?@>E=4C; C EV@C@3VW ?@8 V=DV:>20=8E >?V:0E, @0=0E, l> 4>23>= 5 703>NNBLAO, V 28@07:0E; C 3V=5>=>3VW ?@8 5>4>F5@2VF8BV, .:L?VBV, 203V=VBV, 5@>7VW H89:80B:8; 2 45@<0B>=>3VW ?@8 ?V>45@25@E=528E 1;0AB>70E, 45@<0B>70E.

;V=VG=V E0@0:B5@8AB8:8.
>:070=O.

/: ?@>DV:0:B8G=89 70AV1: =>2>=0@>465=8< 4;O 70?>1V30=O 3=V9=>=70?0:L=8E 70E2>@N20=L H:V@8 V EV@C@3VG=8< E2>@8< 4;O ?@>DV:0:B8:8 @0=>2>V V=D5:FVW.
/: ;V:C20:L=89 70AV1: ?@8 V=D5:FV9=>=70?0:L=8E 70E2>@N20=OE H:V@8 B0 A;87>28E>1>|>=>: 10:B5@V0:L=W B0 3@81:>2>W 5BV>=>3VW, 2;:NG0NG8 Candida albicans; C AB*0B>>3VW ?@8 ?@0@>=B8BV, 0DB>7>=>0B8BV, 28@07:2>=>5:@>B8G=>AB><0B8BV B0 V=H8E C@065=OE A;87>2>W >1>|>=>:8 ?>@>6=8=8 @>B0; 2>B>;0@8=3>=>3VW ?@8 0=3V=V, 70E2>@N20=OE A5@54=L>3> 2CE0 B0 7>2=VH=L>3> A;CE>2>3> ?@>E=4C; C EV@C@3VW ?@8 V=DV:>20=8E >?V:0E, @0=0E, l> 4>23>= 5 703>NNBLAO, V 28@07:0E; C 3V=5>=>3VW ?@8 5>4>F5@2VF8BV, .:L?VBV, 203V=VBV, 5@>7VW H89:80B:8; 2 45@<0B>=>3VW ?@8 ?V>45@25@E=528E 1;0AB>70E, 45@<0B>70E.

@>B8?>:070=O.
V42815=0 GCB:82VABL 4> .>5=BV2 ?@5?0@0BC, 3@81>2V C@065=O 7 O2810<8 5:75<0B870FVW. 0E2>@N20=O ?5GV=-8 B0 =8@>: 7 ?@>CH5=O< DC=:FVW.

A>1;82V 70E>48 157?5:8.
5 4>?CA:0B8 ?>B@0?;0=O ?@5?0@0BC =0 A;87>2V >1>|>=>:8 >G59. @8 ?>B@0?;0=V @>7G8=C 2>GV A;V4 ?@<8B8 WE 25;8>N :V;L:VABN 2>48.

70T<>4VO 7 V=H8<8 ;V:0@AL:8<8 70A>10<8 B0 V=HV 2848 270T<>4V9.
>6:825 70AB>AC20=O C ?>T4=0=V 7 0=5AB57CNG8<8 70A>10<8 (?@<>5:0W=, B@8<5:0W=).

A>1;82>ABV 70AB>AC20=O.
0AB>AC20=O C ?5@V>4 203VB=>ABV 01> 3>4C20=O 3@C44N.
@5?0@0B<>6=0 70AB>A>2C20B8 203VB=8< 6V=0< C 4>?>:>3>2>:>3>2>40E.

40B=VABL 2?;820B8 =0 H284:VABL @50:FVW ?@8 :5@C20=V 02B>B@0=A?>@B* 01> V=H8<8 <5E0=V7<0<8.
@5?0@0B =5 2?;820T=0 H284:VABL @50:FVW ?@8 :5@C20=V 02B>B@0=A?>@B* 01> V=H8<8 <5E0=V7<0<8.

!>AV1 70AB>AC20=O B0 4>78.
@5?0@0B 70AB>A>2C20B8 7>2=VH=L> B0.
>2>=0@>465=8< >1@>1;0B8 ?@5?0@0B< H:V@=V A:;04:8 2 @078 =0 4>1C ?@>BO3<< ?5@H8E
5-6 4=V2 68BBO 70 4>?><3>N AB5@8:L=>3> 20B=>3> B0=0.
V:C20=O 70@04=>B8BC ?@>2>48BLAO ?VA:O 2840;5=O 7C1=8E 2V4;045=L B0 28G815=O ?0B>=>3VG=8E OA5=8E :0@<0=V2. # OA5=V :0@<0=8 22>48B8 =0 20 E28;8= B=>:V BC@C=48, @OA=> 7>G5=V
?@5?0@0B< 01> 9>3> 2>4>8< @>7G8=>4=89 @>7G8= ?@5?0@0BC 3>B>28B8 157?>A5@54=L ?5@54 70AB>AC20=OBC20=O 2>4>3> @>7G8=C ?@5?0@0B @>725AB8 2 40 @07V2 (l G09=0 ;>6:0 =0 200 <; B5?;>W :8?0G5=>W 2>48). @>F54C@C ?>2B>@N20B8 l>45=>=> 01> G5@57 45=L. C@A ;V:C20=O AB0=>28BL 4-6 ?@>F54C@C.
@8 AB><0B8B0E @V7=>W 5BV>=>3VW =0 7>=C C@065=O A;87>2>W >1>|>=>:8 @>B>2>W ?>@>6=8=8 @>18B8 0?;V:0FVN ?@5?0@0BC 2-3 @078 =0 4>1C ?@>BO3<< 2-5 4V1. VBO< 2V:> 2V4 5 @>:V2
?@87=0G0B8 ?>:>A:0=O B5?;8< 2>4>8< @>7G8=>< ?@5?0@0BC. VBO< 2V:> 4> 5 @>:V2 ?@8 AB><0B8BV A;87>2C >1>|>=>:C @>B>2>W ?>@>6=8=8 7<01C20B8 2>4>8< @>7G8=>< ?@5?0@0BC.
@8 0=3V=V <8340;8:8 >1@>1;0B8 ?@5?0@0B< 1 @07 =0 4>1C ?@>BO3<< 2-5 4=V2. @V< B>3>, 4>@>A;8< V 4VBO< 2V:> 2V4 5 @>:V2 l>45=>=> 3-5 @07V2 =0 4>1C ?@87=0G0B8 ?>:>A:0=O B5?;8< 2>4>8< @>7G8=>< ?@5?0@0BC. VBO< 2V:> 4> 5 @>:V2 F8< @>7G8=>< 7<01C20B8 A;87>2C >1>|>=>:C @>B>2>W ?>@>6=8=8 3-4 @078 =0 4>1C. "@820;VABL :C@A ;V:C20=O 3-7 4=V2.
@8 7>2=VH=L>B8BV C A;CE>289 ?@>EV4 22>48B8 BC@C=48, 7>G5=V ?@5?0@0B<=> 10-115 E28;8= 2-3 @078 =0 4>1C. V=V<0:L=89 :C@A ;V:C20=O 420 B86=V. @8 E@>=VG=>B8BV ?@5?0@0B 70?>C20B8 4>@>A;8< ?> 5-8 :@0?5:l 2-3 @078 =0 4>1C, 4VBO< ?> 1-2 :@0?;V 3-4 @078 =0 4>1C.
:O ?>=DV:0:B8:8 3=V9=>=70?0:L=8E CA:;04=5=L @0=C l>45=>=> >1@>1;0B8 AB5@8:L=8< <0@;528< B0=><, @OA=> 7>G5=8< ?@5?0@0B<, ?>:@8B8 AB5@8:L=>N A5@25B:>N, 7>G5=>N =8< 65, V =0;:0AB8 DV:ACNGC ?>207:C. '5@57 3-4 4>18 @0=C ?>2B>@=> >1@>18B8 ?@5?0@0B< V =0;:0AB8 ACEC AB5@8:L=C ?>207:C. C@A 287=0G8B8 ?5@51V3> 703>T=O @0=8, ?@8 =5CA:;04=5=>AC20=O AB0=>28BL 7-10 4=V2.
:O ;V:C20=O V=DV:>20=8E >?V:V2, @0= V 28@07:; l> B@820;89 G0A =5 703>NNBLAO, 2V4:@8B8 V=DV:>20=8E ?5@5;A>2C20B8 2>4>89 @>7G8= ?@5?0@0BC. >4=8< @>7G8=>< ?@5?0@0B ?@>8B8 @0=8 B0 28@07:8, 0 B0>6 =0;:0AB8 ?>207:8 7 @>7G8=>< =0 @0=>2C ?>25@E=N. @8 V=DV:>20=8E >?V:0E ?5@5207:8 @>18B8 G5@57 45=L, ?@8 V=H8E @0=0E l>45=>=> 1-2 @078 =0 4>1C. "@820;VABL ;V:C20=O 70;568BL 2V4 E0@0:B5@C B0 B06=>ABV 70E2>@N20=O.
@8 5=4>F5@2VF8BV, .:L?VBV, 203V=VBV, 5@>7V0E H89:8<0B:8 @>18B8 A?@8=FN20=O, 7@>H5=O B0 ?@8<G:8 B5?;8< 2>4>8< @>7G8=>< ?@5?0@0B l>45=>=> 1-2 @078 =0 4>1C. C@A ;V:C20=O 5-10 ?@>F54C@C.
@8 ?V>45@25@E=52>7V B0 45@<0B>70E, C B>N D;@>N, ?@5?0@0B ?@87=0G0B8 C 283;04V ?>207:; 01> 7<01C20=L 2-3=810 C@065=O l>45=>=> 1-2 @078 =0 4>1C. "@820;VABL ;V:C20=O 287=0G0TBLAO E0@0:B5@< B0 B06:VABN 70E2>@N20=O.

VB8.
@5?0@0B<>6=0 70AB>A>2C20B8 4VBO<, 2;:NG0NG8 =>2>=0@>465=8E.

5@54>7C20=O.
@8 75@54>7C20=V <6;825 ?>A8;5=O ?>1VG=8E 5D5:BV2 ?@5?0@0BC. V:C20=O A8<0B8G=0 B5@0?V0.

>1VG=V @50:FVW.
l>:C VV A8AB5<8: 0;5@3VG=V @50:FVW, 2;:NG0NG8 ?>G5@2=>V=O.
@8 70AB>AC20=V =0 A;87>28E >1>|>=>:0E @>B>2>W ?>@>6=8=8 2V4GCBB0 3V@>B8, 0 ?@8 70AB>AC20=V =0 @0=>2C ?>25@E=N >@>B>G0A=5 2V4GCBB0 ?5GV=O.

"5@ABV.
3 @>:8.

#>28 715@V30=O.
15@V30B8 2>@83V=0;L=V9 C70:>2FV ?@8 B515@V30B8 C =54>ABC?>>

#?0:>2:0.
> 50 <; C D;0;>=V; ?> 1 D;0;>=C 2 ?0GFV.

0B53>@VO 2V4?CA:C.
57 @5F5?B0.

8@>1=8.
"««\$0@<0F52B8G=0 D01@8:0».

VAF57=0E>465=O 28@>1=8:0 B0 9>3> 04@5A0 20465=O 4VO:L=>ABV
#:@0W=0, 12430, 8B><8@AL:0>1;., 8B><8@AL:89 @09=, A !B0=8HV2:0, 2C; >@>:l>20, 1C4. 4.

002=8:.
"«».

VAF57=0E>465=O 7002=8:0 B0/01? ?@54AB02=8:0 7002=8:0.
#:@0W=0, 04107, >25FL:0, 1C4. 14. :2. 72.