

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

!□"□®
(BISEPTOL®)

!,:04:
4VNGV @5G>28=8: AC;LD0<5B>:A07>;, B@8<5B>?@8< (co-trimoxazole);
1 B01;5B:0 100 <3/20 <3 100 <3, B@8<5B>?@8 20 <3;
1 B01;5B:0 400 <3/80 <3 400 <3, B@8<5B>?@8 80 <3;
4>?>28=8: :@>E<0;L :0@B>;O=89, B0;L:, <03=VN AB50@0B, A?8@B ?>;V2V=V;>289,
<5B8;?0@03V4@>:A815=7>0B (218), ?@>?V;?0@03V4@>:A815=7>0B (216), ?@>?V;5=3;V:>;L.

V:0@AL:0 D>@<0. "01;5B:8.
A=>2=V DV78:>-EVABV:
B01;5B:8 100 <3/20 <3 B01;5B:8 1V;>3> :>;L>@C 7 6>2BC20B8< 2V4BV=;><, :@C3;>W D>@<8, ?>;A:V 7
>1>E 1>;V2, 7 3;04:>N ?>25@E=5N, 7 FV;VA=8<8 :@00<8, 7 D0A:>N, 7 >4=>3> 1>;C 3@02V@>20=V
;VB5@0<8 «Bs»;
B01;5B:8 400 <3/80 <3 B01;5B:8 1V;>3> :>;L>@C 7 6>2BC20B8< 2V4BV=;><, :@C3;>W D>@<8, ?>;A:V 7
>1>E 1>;V2, 7 3;04:>N ?>25@E=5N, 7 FV;VA=8<8 :@00<8, 7 D0A:>N, 7 >4=>3> 1>;C 3@02V@>20=V
@8A:>N «->», =04 O:>N 7=0E>4OBLAO ;VB5@8 «Bs».

\$0@<0:>B5@0?52B8G=0 3@C?0. @>B81=V 70A>18 4;O A8AB5<=>3> 70AB>AC20==O.
>4 "% J01E E01.

\$0@<0:>;>3VG=V 2;0AB82>ABV.
\$0@<0:>48=0
><1V=>20=89 10:B5@8F84=89 ?@5?0@0B, O:89 N B@820;VABN 4VW, I> V=3V1CT A8=B57 D>;VT2>W
:8A;>B8 H;OE<< :>=:C@5=B=>3> 0=B03>=V715=7>9=>N :8A;>B>N, V B@8<5B>?@8< V=3V1VB>@
10:B5@V0;L=>W @54C:B078 453V4@>D>;VT2>W :8A;>B8, I> 2V4?>2V40T 70 A8=B57 1V;>;3VG=>
0:B82=>W B5B@03V4@>D>;VT2>W :8A;>B8. !C28= C A?V22V4=>H5==V 5 4> 1 =07820TBLAO :>-B@8
<>:A07>;>
!?>;CG5==O :>=5=BV2, I> 4VT =0 >48= ;0=FN3 1V>EV@5=L, ?@872>48BL 4> A8=5@3V7
B810:B5@V0;L=>W 4VW V ?>2V;L=VH>3> @>728B:C =5GCB;82>ABV 10:B5@V9.
>-B@8<>:A07>; 0:B82=89 in vitro ?@>B8 E.coli (C B>?0B>35==8E HB0;>?>78B82=8E HB0 Proteus spp. (C
B>P.vulgaris), Morganella morganii, Klebsiella spp., Proteus mirabilis, Enterobacter sp., Hemophilus influenzae,
Str.pneumoniae, Shigella flexneri, Shigella sonnei, Neisseria gonorrhoeae, Pneumocystis carinii

\$0@<0:>:V=5B8:0.
18420 :>=5=B8 ?@5?0@0BC H284:> 2A<>:BCNBLAO C :@>2 7 B@02=>3> B@0:BC. 0:A8<0;L=0
:>=F5=B@0FVO >1>E A;:04>28E C A8@>20BFV 4>AO30TBLAO G5@57 1-4 3>48=8 ?VA;O
?5@>@0;L=>3> ?@89>
>7?>4V; >1>E :>=5=BV2 2V4@V7=OTBLAO: AC;LD0<5B>:A07>; @>7?>4V;OTBLAO 28;;NG=> 2
?>70;;VB8==>28IV, B@8<5B>?@8< 2 CAVE @V48=0E >@30=V7
8A>:0 :>=F5=B@0FVO B@8<5B>?@8=EV0;L=8E 70;>7, ?5@542V9 70;>7V B0 2 6>2GV. >=F5=B@0FVO
AC;LD0<5B>:A07>;C C @V48=0E >@30=V7 =86G0. 1842V A?>;C:8 C 28A>:8E :>=F5=B@0FVOE
702;ONBLAO C <>:@>B8==V, 284V;5==OE ?VE28 B0 2 @V48=V A5@54=L>3> 2CE0.
1□T< @>7?>4V;C AC;LD0<5B>:A07>;C AB0=>28BL 0,36 /:3, B@8<5B>?@8/:3.
18420 :>=5=B8 <5B01>;V7CNBLAO C ?5GV=FV: AC;LD0<5B>:A07>; H;OE<< 0F5B8;N20==O V
7207C20==O 7 3;N:C@=>=>2>N :8A;>B>N, B@8<5B>?@8< H;OE<< >:8A;5==O B0 3V4@>:A8;N20==O.
82>48BLAO 2 >A=>2=>
>=F5=B@0FVO 0:B82=8E A?>;C: C A5GV 7=0G=> 28I0, =V6 C :@>2V. @>BO3< 72 3>48= V7 A5G5N
282>48BLAO 84,5 % ?@89=OB>W 4>78 AC;LD0<5B>:A07>;C V 66,8 % B@8<5B>?@8
5@V>4 =0?V2282545==O AB0=>28BL 10 3>48= 4;O AC;LD0<5B>:A07>;C V 8-10 3>48= 4;O B@8
<5B>?@82>W =54>AB0B=>ABV ?5@V>4 =0?V2282545==O >1>E :>=5=BV2 ?>4>26CTBLAO.
!C;LD0<5B>:A07>; V B@8<5B>?@8< ?@>=8:0NBL C 3@C4=5 <>;> B0 =04E>4OBL 4> :@>2>>1V3C
?;>40.

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

>:070==O.

V:C20==O V=D5:FV9, A?@8G8=5=8E GCB;828<8 4> ?@5?0@0BC ?0B>35==8<8 >@30=V7<0<8, C @07V, :>;8 ?5@52030 2V4 B0:>3> ;V:C20==O ?5@528ICT <>6;8289 @878:; =5>1EV4=> 28@VH8B8 ?8B0==O ?@> <>6;82VABL 70AB>AC20==O ;8H5 >4=>3> 0=B810:B5@V0;L=>3> 70A>1C.

=D5:FVW ->@30=V2 B0 48E0;L=8E H;OEV2: 3>AB@89 V E@>=VG=89 1@>=EVB, 1@>=E>5:B078, ?=52 <=>VO (C B>Pneumocystis carinii), D0@8=3VB, 0=3V=0 (?@8 V=D5:FVOE, A?@8G8=5=8E β-35 <>;VB8G=8<8 AB@5?B>:>:0<8 3@C?8 , G0AB>B0 5@048:0FVW =5 FV;:>× 4>AB0B=O), A8=CA8B, A5@54=V9 >B8B.

=D5:FVW =8@>: V A5G>282V4=8E H;OEV2: 3>AB@89 V E@>=VG=89 F8AB8B, ?VT;>=5D@8B, C@5B@8B, ?@>AB0B8B, <O:89 H0=@.

=D5:FVW B@02=>3> B@0:BC: G5@52=89 B8D V ?0@0B8D, H835;L>78 (A?@8G8=5=V GCB;828<8 HB0 <0<8 Shigella flexneri V Shigella sonnei, O:I> ?>:070=0 0=B810:B5@V0;L=0 B5@0?VO), 4V0@50 <0=4@V2=8:0, A?@8G8=5=0 5=B5@>B>:A8G=8<8 HB0<0<8 Escherichia coli, E>;5@0 (2 4>?>2=5==O 4> 2V4=>2;5==O @V48=8 V 5;5:B@>;VBV2).

=HV 10:B5@V0;L=V V=D5:FVW: 3>AB@89 V E@>=VG=89 >AB5>7, =>:0@4V>7, 0:B8=>7, B>:A>?;07 <>7, ?V245==>0<5@8:0=AL:89 1;0AB>7.

@>B8?>:070==O.

V428I5=0 GCB;82VABL 4> B@8<5B>?@8EV4=V, ?@>B84V015B8G=V 70A>18 AC;LD>=V;A5G>28=8, 0 B0:>6 BV0784=V 4VC@5B8:8) B0 V=H8E :>=5=BV2 ?@5?0@0BC.

>AB@89 35?0B8B, ?>@CH5==O DC=:FVW ?5GV=:8, BO6:0 ?5GV=:>20 =54>AB0B=VABL, 2;;NG0NG8 4V03=>AB>20=5 CH:>465==O ?0@5=EV<8 ?5GV=:8, ?>@DV@VO.

0E2>@N20==O :@>2V, ?>@CH5==O 35<>?>57C, BO6:V 35<0B>;>3VG=V ?>@CH5==O, <530;>1;0AB=0 0=5< D>;VT2>W :8A;>B8, 45DVF8B 3;N:>7>-6-D>AD0B453V4@>35=078 (703@>70 @>728B:C 35 <>;V7C).

"O6:0 =8@:>20 =54>AB0B=VABL, O:0 E0@0:B5@87CTBLAO ;V@5=A× :@50B8=V=C <5=H5 15 <;/E2, O:I> =5<0T <>6;82>ABV 287=0G5==O :>=F5=B@0FVW ;V:0@AL:>3> 70A>1C 2 ?;072V (70 28=OB:>× 28?04:V2 ?@>2545==O 35<>4V0;V7C).

@5?0@0B ?@>B8?>:070=89 ?0FVT=B0<, O:V ?@>E>4OBL :C@A EVB5@0?VW.

@5?0@0B =5 <>6=0 ?@87=0G0B8 C :>×1V=0FVW 7 4>D5B8;V4>

70T<>4V0 7 V=H8<8 ;V:0@AL:8<8 70A>10<8 B0 V=HV 2848 270T<>4V9.

5AB5@>W4=V ?@>B870?0;L=V 70A>18, ?@>B84V015B8G=V ?>EV4=V AC;LD>=V;A5G>28=8, 48D5=V=,

=5?@O03C;O=B8, 10@1VBC@0B8 ?>A8;NNBL @878: 28=8:=5==O ?>1VG=8E 5D5:BV2.

A:>@1V=>20 :8A;>B0 ?V428ICT :@8AB0;C@VN.

E2>@8E, O:V 70AB>A>2CNBL 1VA5?B>; V F8:;>A?>@8=8 ?VA;O ?5@5A04:8 =8@:8,<>65

A?>AB5@V30B8AL >1>@>B=5 ?>3V@H5==O DC=:FVW =8@>; I> ?@>O2;OTBLAO ?V428I5==O< @V2=O :@50B8=V=C B0, 2V@>3V4=>, 7C<>2;5=> 4VTN B@8<5B>?@8

"@8<5B>?@8< <0T =57=0G=C A?>@V4=5=VABL V7 ;N4AL:>N 453V4@>D>;0B=>N @54C:B07>N, 0;5 <>65 ?V428I8B8 B>:A8G=VABL<5B>B@5:A0BC, >A>1;82> 2 ?@8ACB=>ABV V=H8E D0:B>@V2

@878:C ;VB=V9 2V:, 3V?>0;L1C=5@CH5==O DC=:FVW =8@>;, ?@83=VG5==O :VAB:>2>3><>7:C. "0:0 ?>1VG=0 4V0 ?@5?0@0BC <>65 ?@>O28B8AO >A>1;82> B>4V, :>;8<5B>B@5:A0B 70AB>A>2CTBLAO C 25;8:V9 4>7V. 5:>×5=4CTBLAO ;V:C20B8 B0:8E ?0FVT=BV2 D>;VT2>N :8A;>B>N G8 D>;V=0B× :0;LFFVN, I>1 70?>1V3B8 2?;82C =0 35<>?>57.

E2>@8E, O:V 70AB>A>2CNBL B@8<5B>?@8< V <5B>B@5:A0B, 1C;8 >?8A0=V 28?04:8 ?0=F8B>?5=VW.

>-B@8<>:A07>; 71V;LHCT :>=F5=B@0FVN 2V;L=>W D@0:FVW<5B>B@5:A0BC C A8@>20BFV 70 @0EC=>: 28BVA=5==O 9>3> 7V 72O7:V2 7 1V;:0<8.

VA5?B>;® <>65 ?>B5=FVN20B8 4VN ?5@>@0;L=8E 3V?>3;V:51V2, ?>EV4=8E AC;LD>=V;A5G>28=8, I> 7C<>2;NT ?V428I5==O @878:C @>728B:C 3V?>3;V:5

@8 >4=>G0A=> V=H8E 0=B8:>03C;O=BV2 VA5?B>;® <>65 71V;LHC20B8 ?@>B@<1V=>289 G0A, I>
>?>B@51CT 7<5=H5==O 4>78 F8E ;V:0@AL:8E 70A>1V2. # B0:8E 28?04:0E =5>1EV4=> ?>2B>@=>
287=0G8B8 G0A 73>@B0==O :@>2V.
E2>@8E, O:V 70AB>A>2CNBL V=4<5B0F8=, <>65 71V;LHC20B8AL :>=F5=B@0FVO AC;LD0
<5B>:A07>;C 2 :@>2V. ?8A0=> >48= 28?04>: B>:A8G=>3> 45;V@VN ?VA;O >4=>G0A=>3> ?@89>;C V 0
<0=B048=C.
"@8<5B>?@8< =5 <>6=0 70AB>A>2C20B8 @07<< 7 4>D5B8;V4> A?@8G8=OT ?V428I5==O <0:A8
<0;L=>W :>=F5=B@0FVW 4>D5B8;V4C,
I> ?@872>48BL 4> A5@9>7=8E 25=B@8:C;O@=8E 0@8B
E2>@8E ;VB=L>3> 2V:C ?>T4=0==O :>-B@8<:A07>;C 7 45O:8<8 A5G>3V==8<8 ?@5?0@0B0<8,
>A>1;82> BV07840<8, 71V;LHCT @878: B@<1>F8B>?5=VW.
>-B@8<:A07>; <>65 ?V428IC20B8 :>=F5=B@0FVN 483>:A8=C 2 A8@>20BFV :@>2V, >A>1;82> C
?0FVT=BV2 ;VB=L>3> 2V:C.
@8 >4=>G0A=>AC20==V ?@5?0@0BC 7 B@8F8;;VG=8<8 0=B845?@5A0=B0<8 7=86CTBLAO
0:B82=VABL >AB0==VE.
@5?0@0B 7=86CT =04V9=VABL ?5@>@0;L=>W :>=B@0F5?FVW, B>1EV4=> @048B8 ?0FVT=B:0<
26820B8 4>40B:>28E ?@>B870?;V4=8E 70E>4V2 ?V4 G0A ;V:C20==O VA5?B>;×®.
@5?0@0B 30;L
@8 >4=>G0A=><, O:89 70AB>A>2CNBL 4;O ?@>DV;0:B8:8 <0;O@VW 2 4>7V 28I5 25 <3/B8645=L, C
?0FVT=BV2 <>65 @>728=CB8AO <530;>1;0AB=0 0=5

A>1;82>ABV 70AB>AC20==O.

0AB5@565==O V A?5FV0;L=V 70E>48 ?@8 70AB>AC20==V.

?8A0=> @V4:VA=V 28?04:8 =5157?5G=8E 4;O 68BBO CA::04=5=L, ?>2O70=8E V7 70AB>AC20==O<
AC;LD0=V;0AB@>3> =5:@>7C ?5GV=:8, 0?;0AB8G=>W 0=5F8B>7C, V=H8E ?>@CH5=L A::04C :@>2V
V @50:FV9 3V?5@GCB;82>ABV 7 1>:C 48E0;L=>W A8AB5<8 (V=DV;LB@0B C ;535=OE).
>2V4><;O;>AO ?@> ?>O2C =5157?5G=8E 4;O 68BBO H:V@=8E @50:FV9: A8=4@<< !BV25=A0-
6=>A>=0 V B>:A8G=89 5?V45@<0;L=89 =5:@>;V7 C 72'07:C V7 70AB>AC20==O< AC;LD0<5B>:A07>;C.
!;V4 ?>2V4><8B8 ?0FVT=BV2 I>4> AC1T:B82=8E B0 >1T:B82=8E A81EV4=>ABV @5B5;L=>3>
A?>AB5@565==O. 091V;LH89 @878: ?>O28 A5@9>7=8E H:V@=8E @50:FV9 (A8=4@>=A>=0 V
B>:A8G=>3> 5?V45@<0;L=>3> =5:@>;V7C) 2V47=0G0TBLAO 2 ?5@HV B86=V ;V:C20==O.
V:C20==O VA5?B>;×® A;V4 ?@8?8=8B8 C @07V ?>O28 AC1T:B82=8E 01> >1T:B82=8E A8-A>=0 01>
B>:A8G=>3> 5?V45@<0;L=>3> =5:@>;V7C (B0:8E O: @0?B>289 @>728B>: H:V@=8E 28A8?0=L,
G0AB> 7 ?CE8@FO<8 01> C@065==O A;87>28E >1>;>=:).
09:@0IV @57C;LB0B8 2 ;V:C20==V A8=4@>=A>=0 01> B>:A8G=>3> 5?V45@<0;L=>3> =5:@>;V7C
A?>AB5@V30NBLAO, O:I> ?@>2545=> @0==N 4V03=>AB8:C V =5309=> ?@8?8=5=> ?@89<<
?@5?0@0BC, O:89 28::8:02 FN @50:FVN. 5309=0 2V4:@0ICT ?@>3=>7.
/I> ?V4 G0A ;V:C20==O ?@5?0@0B< VA5?B>;® C ?0FVT=B0 A?>AB5@V30TBLAO A8=4@<<
!BV25=c0-6=>A>=0 01> B>:A8G=89 5?V45@<0;L=89 =5:@>;V7, =5 A;V4 2<091CB=L>
@8 ?>O2V H:V@=>3> 28A8?C 01> 1C4L-O:>W V=H>W ?>1VG=>W @50:FVW (2::NG0NG8 1V;L C
3>@;V, ?V428I5=C B510E, 1;V4VABL, ?C@?C@C, 6>2BO=8FN, O:V =5<>6CBL 1CB8 ?>OA=5=V V=H8
<8 ?@8G8=0<8) ?@5?0@0B A;V4 2V40H5;L, 7048H:0 B0 @>728B>: ;535=52>3> V=DV;LB@0BC <>6CBL
B0:>6 1CB8 >7=0:0<8 @50:FVW 3V?5@GCB;82>ABV. 5>1EV4=> 4>B@815@56=>ABV ?@8
70AB>AC20==V ?@5?0@0BC ?0FVT=B0<, 2 0=0<=57V O:8E 707=0G5=0 B06:0 0;5@3VG=0 @50:FVO
01> 1@>=EV0;L=0 0AB<0.
:@V< 28=OB:>28E 28?04:V2, □VA5?B>;® =5 A;V4 ?@87=0G0B8 ?0FVT=B0< V7 A5@9>7=8<8 ABV9:8<8
7 '0A 2V4 G0AC ?@5?0@0B 70AB>A>2C20;8 ?0FVT=B0<, O:V >B@8B>:A8G=V 70A>18 4;O ;V:C20==O
;59:5AB5@V30;>AL =VO:8E >7=0: ?>1VG=8E 5D5:BV2 7 1>:C :VAB:>2>3><>7:C G8 ?5@8D5@8G=>W
:@>2V.

2060NG8 =0 9<>2V@=VABL 35<>;V7C, □VA5?B>;® =5 A;V4 ?@87=0G0B8 ?0FVT=B0< V7 45O:8<8 35
<>3;>1V=>?0BVO<8 (Hb-&N@VE, Hb-5;L=), 70 28=OB:<< 28?04:V2 =030;L=>W ?>B@518 V BV;L:8 C

"@820;5 ;V:C20==O ?@5?0@0B<=5 @5:><5=4>20=>. V:C20==O E2>@8E ;VB=L>3> 2V:C =5 ?>28==>
1CB8 B@820;8@8E ;VB=L>3> 2V:C ?@8 ;V:C20==V VA5?B>;<® 71V;LHCTBLAO @878: CH:>465==O
=8@>: 01> ?5GV=:8, BO6:8E H:V@=8E @50:FV9, ?@83=VG5==O DC=:FVW :VAB:>2>3><>7:C
(2;:NG0NG8 CB2>@5==O :@>2O=8E BV;5FL), 0 B0:>6 B@<1>F8B>?5=VO 7 ?C@?C@>N 01> 157.
4=>G0A=5 70AB>AC20==O 4VC@5B8:V2 ?V428ICT @878: :@>2>B5G.
0AB>AC20==O :>-B@8<>:A07>;C ?@8 AB@5?B>:>:>2>A=> G0AB> 70:V=GCTBLAO =5704>2V;L=8<
@57C;LB0B<, >A:V;L:8 =5 240TBLAO 5;V
"@8<5B>?@8< ?>@CHCT >12V4=V9 4VTBV =5 2?;820T =0 AB0= E2>@8E =0 D5=V;:5B>=C@VN.
/: V ?@8 ?@87=0G5==V 1C4L-O:8E AC;LD>=01EV4=> 1CB8 >15@56=8< 7 E2>@8<8 =0 ?>@DV@VN B0
?>@CH5==O DC=:FVW I8B>284=>W 70;>78. %2>@V, 4;O >128= O:8E E0@0:B5@=5 ?>2V;L=5
0F5B8;N20==O, 1V;LH AE8;L=V 4> @>728B:C V4V>A8=:@07VW 4> AC;LD>=0
!;V4 >15@56=> 70AB>A>2C20B8 VA5?B>;® ?@8 ;V:C20==V E2>@8E 7 =54>AB0B=L>N DC=:FVTN
?5GV=:8 01> =8@>:, =5AB0G5N D>;VT2>W :8A;>B8 (=0?@8;:04 ?0FVT=BV2 ;VB=L>3> 2V:C, E2>@8E
=0 0;>3>;V7<, E2>@8E, O:V ;V:CNBLAO ?@>B8AC4<=8<8 ?@5?0@0B0<8, E2>@8E V7 A8=4@<<<
7=865=>3> 2A<>:BC20==O 01> ?0FVT=BV2, I> =54>W40NBL) B0 ?@8 ?>@CH5==V :@>2>B2>@5==O.
0FVT=B0<;VB=L>3> 2V:C, 0 B0:>6 ?0FVT=B0< 7 V<>2V@=8< 45DVF8B>< D>;VT2>W :8A;>B8 ?V4
G0A ;V:C20==O ?@5?0@0B< A;V4 @>73;O=CB8 ?8B0==O ?@> 4>40B:>25 ?@87=0G5==O D>;VT2>W
:8A;>B8.
;O ?>?5@5465==O :@8AB0;C@VW V 70:C?>@N20==O :0=0;LFBV2 =8@>: ?0FVT=B8 ?>28==V
A?>6820B8 4>AB0B=N :V;L:VABL @V48=8 ?@8=09<=V 1,5 ; =0 4>1C). 878: :@8AB0;C@VW
?V428ICTBLAO ?@8 ?>@CH5==V E0@GC20==O.
@8 1V;LH B@820;>1EV4=> @5B5;L=> :>=B@>;N20B8 :0@B8=C :@>2V, DC=:FVN ?5GV=:8 V =8@>:;O
?>A;01;5==O 35<0B>;>3VG=8E 5D5:BV2 ?V4 G0A ;V:C20==O <>6=0 4>4020B8 D>;VT2C :8A;>BC (5-10
<3/4>1C) 157 @878:C 1C4L-O:>3> 7<5=H5==O 0=B810:B5@V0;L=8E 5D5:BV2 ?@5?0@0BC.
!;V4 4>B@815@56=>ABV ?@8 ?@87=0G5==V ?@5?0@0BC □VA5?B>;® ?0FVT=B0< 7 @>7C<>2>N
2V4AB0;VABN, ?>2O70=>N 7 %-E@<<A><>N, >A:V;L:8 45DVF8B D>;VT2>W :8A;>B8 <>65
?@8725AB8 4> 703>AB@5==O ?A8E<@=8E @>7;04V2, ?>2O70=8E V7 70E2>@N20==O
E2>@8E =0 !, I> 70AB>A>2CNBL VA5?B>;® C 72O7:C 7 ?=52<>F8AB=8< 70@065==O<, G0ABVH5
28=8:0NBL B0:V A8<8: 28A8?, ?@>?0A=8FO, ;59:>?5=VO, 71V;LH5==O @V2=V2 0B@0=AD5@07,
3V?5@:0;VT=0B@VT
V4 G0A ;V:C20==O =5>1EV4=> C=8:0B8 ?@O<>3> A>=OG=>3> ?>@>01> 28:>@8AB>2C20B8 70E8A=89
>4O3 V/01> D>B>70E8A=V ?@5?0@0B8 ?V4 G0A ;V:C20==OC 72O7:C 7 D>B>GCB;82VABN.
V4 G0A ?@89>-B@8<>:A07>;C (B0: A0<>, O: V ?V4 G0A ?@89>1V2) <>65 @>728=CB8AO ?A524<<5
<1@0=>7=89 :>;VB.
%0@0:B5@ ?5@51V3C E2>@>18 <>65 1CB8 2V4 ;53:>3> 4> 703@>7;82>3> 4;O 68BBO. ">;L 2V4V3@0T
?@028;L=0 4V03=>AB8:0 FL>3> 70E2>@N20==O C ?0FVT=BV2, C O:8E 2 E>4V 70AB>AC20==O
0=B810:B5@V0;L=>3> ;V:0@AL:>3> 70A>1C 7O28;0AO 4V0@5O. V:C20==O 0=B810:B5@V0;L=8<8
70A>10<8 2?;820T =0 7;>3VG=>W D>;@8 >1>4>2>W :8H:8 V <>65 28;;8:0B8 =04ABV 0=05@>1=8E
?0;8G>: ">:A8=8, O:V ?@>4C:CNBL *Clostridium difficile* T >4=VTN 7 3>;>2=8E ?@8G8= @>728B:C
:>;VBC.
@07V ;53:>3> ?5@51V3C ?A524<<5<1@0=>7=>3> :>;VBC 70728G09 4>AB0B=V< T ?@8?8=5==O
?@89>3> 70A>1C. # 28?04:0E A5@54=L>W BO6:>ABV B0 BO6:8E 28?04:0E ?0FVT=B0< =5>1EV4=>
225AB8 @V48=C, 5;5:B@>;VB8, 1V;>: V 0=B810:B5@V0;L=V 70A>18, 0:B82=V I>4>*Clostridium difficile*
<5B@>=V407>; 01> 20=:>48B8 ;V:0@AL:V 70A>18, I> ?@83=VGCNBL ?5@8AB0;LB8:C, 01> V=HV
?@>B84V0@59=V ?@5?0@0B8.
@5?0@0B :A815=7>0B8, O:V <>6CBL 28;;8:0B8 0;5@3VG=V @50:FVW (<>6;82V 2V4AB@>G5=V
@50:FVW).
"@820;5 ;V:C20==O <>65 ?@872>48B8 4> =043> @>ABC =5GCB;828E >@30=V7 @>7?>G0B8
2V4?>2V4=5 ;V:C20==O.
?:82 =0 @57C;LB0B8 :01>@0B>@=8E 4>A;V465=L. "@8<5B>?@8< <>65 2?;820B8 =0 @57C;LB0B8
287=0G5==O :>=F5=B@0FVW <5B>@5:A0BC C A8@>20BFV 5=78<0B8G=8< <5B>4><, 0;5 =5 2?;820T =0
=8E ?@8 @04V>V;>3VG=>
>-B@8<>:A07>; <>65 ?V428IC20B8 ?@81;87=> =0 10 % @57C;LB0B8 B5ABC /DD5 7 >A=>2=8< ?V:@0B>
<=0 :@50B8=V=.

0AB>AC20==O C ?5@V>4 203VB=>ABV 01> 3>4C20==O 3@C44N.

VA5?B>;® =5 <>6=0 70AB>A>2C20B8 2 ?5@V>4 203VB=>ABV B0 3>4C20==O 3@C44N.

40B=VABL ??: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 7C<>2;NT 7=865==O ?A8E>DV78G=>W 0:B82=>ABV B0 740B=>ABV :5@C20B8 B@0=A?>@B=8<8 70A>10<8 V >1A;C3>2C20B8 <5E0=V7<8.

/:I> ?V4 G0A ;V:C20==O @>72820NBLAO ?>1VG=V 5D5:B8 7 1>:C =5@2>2>W A8AB5<8 (70?0 <>@>G5==O, 3>;>2=89 1V;L, AC4<8, =5@2>7=VABL, 2V4GCBBO 2B<8), I> <>65 7C<>28B8 7=865==O H284:>ABV ?A8E><>B>@=8E @50:FV9, A;V4 C=8:0B8 :5@C20==O 02B>B@0=A?>@B< B0 @>1>B8 7V A;:04=8<8 <5E0=V7<0<8.

!?!>AV1 70AB>AC20==O B0 4>78.

>@>A;V V 4VB8 2V:>< 2V4 12 @>:V2. 28G09=0 ?>G0B:>20 4>70 AB0=>28BL 2 B01;5B:8 □VA5?B>;C® 400 <3/80 <3 01> 8 B01;5B>: □VA5?B>;C® 100 <3/20 <3 2 @078 =0 4>1C (2@0=FV B0 225G5@V) ?VA;O W48, 70?820B8 25;8:>N :V;L:VABN @V48=8. @8 BO6:8E V=D5:FVOE<>6=0 ?@87=0G0B8 28IV 4>1>2V 4>78 4> 3 B01;5B>: □VA5?B>;C® 400 <3/80 <3 01> 12 B01;5B>: □VA5?B>;C® 100 <3/20 <3 2 @078 =0 4>1C. ;O ?V4B@8W B5@0?VW B@820;VABN 1V;LH5 14 4=V2 @5:><5=4CTBLAO ?@89<0B8 ?> 1 B01;5BFV □VA5?B>;C® 400 <3/80 <3 01> 4 B01;5B:8 □VA5?B>;C® 100 <3/20 <3 2 @078 =0 4>1C.

VB8 6-12 @>:V2. 5:><5=4>20=0 4>1>20 4>70 4;O 4VB59 AB0=>28BL 6<3 B@8<5B>?@8 5:><5=4>20=0 4>1>20 4>70 4;O 4VB59 2V:>< 2V4 6 4> 12 @>:V2 AB0=>28BL 1 B01;5B:C □VA5?B>;C® 400 <3/80 <3 01> 4 B01;5B:8 □VA5?B>;C® 100 <3/20 <3 2 @078 =0 4>1C.

VBO< 2V:>< 4> 6 @>:V2 @5:><5=4CTBLAO ?@87=0G0B8 V=HV ;V:0@AL:V D>@<8 ?@5?0@0BC (ACA?5=7VO).

"@820;VABL :C@AC ;V:C20==O?@8 3>AB@8E V=D5:FVOE, 70 28=OB:>< 3>=>@5W, <0T AB0=>28B8 I>=09<5=H5 5 4V1 01> I5 2 4=V ?VA;O 7=8:=5==O A8@N20==O. "@845==89 :C@A ;V:C20==O <>65 1CB8 4>AB0B=V< 4;O 6V=>: 7 =5CA;:04=5=8< 3>AB@8< F8AB8B>@N20==V @5:><5=4CTBLAO 70AB>A>2C20B8 ?@5?0@0B ?@>BO3<< 5-7 4=V2. @8 3>AB@>7V B@820;VABL ;V:C20==O<0T AB0=>28B8 =5 <5=H5 4 B86=V2, 0 ?@8 =>:0@4V>7V =02VBL 1V;LH5 (?> 6-8 B01;5B>: □VA5?B>;C® 400 <3/80 <3 ?@>BO3<< 3

;O ?@>DV;0:B8:8 B0 ;V:C20==O B>:A>?;07<>7C (Toxoplasmosis) <>6=0 70AB>A>2C20B8 AE57C20==O 4;O Pneumocystis carinii (482. =86G5).

@8 =5CA;:04=5=V9 3>=>@5W <>6;8289 >4=>45==89 :C@A ;V:C20==O ?> 5 B01;5B>: □VA5?B>;C® 400 <3/80 <3 2 @078 =0 4>1C (2@0=FV B0 225G5@V) 01> 42>45==89 :C@A ;V:C20==O ?> 4 B01;5B:8 VA5?B>;C® 400 <3/80 <3 2 @078 =0 4>1C.

;O ;V:C20==O ?=52<>=VW, A?@8G8=5=>W Pneumocystis carinii, @5:><5=4>20=0 4>1>20 4>70 AB0=>28BL 20 <3 B@8<5B>?@8 □VA5?B>;C® 400 <3/80 <3). &N 4>7C A;V4 @>7?>4V;OB8 =0 2 01> 1V;LH5 ?@89>4>26C20B8 ?@>BO3<< 14-21 4=O.

;O ?@>DV;0:B8:8 ?=52<>=VW, A?@8G8=5=>W Pneumocystis carinii, @5:><5=4>20=0 4>70 4;O 4>@>A;8E AB0=>28BL 2 B01;5B:8 □VA5?B>;C® 400 <3/80 <3 01> 8 B01;5B>: □VA5?B>;C® 100 <3/20 <3 1 @07 =0 4>1C 01> 2 B01;5B:8 □VA5?B>;C® 400 <3/80 <3 01> 8 B01;5B>: □VA5?B>;C® 100 <3/20 <3 G5@57 45=L, 01> 2 B01;5B:8 □VA5?B>;C® 400 <3/80 <3 01> 8 B01;5B>: □VA5?B>;C® 100 <3/20 <3 2 @078 =0 4>1C ?@>BO3<< ?5@V>4C ?V428I5=>3> @878:C V=D5:FVW.

;O ?@>DV;0:B8:8 4VBO< 728G09=C B5@0?52B8G=C 4>7C, @>7@0E>20=C =0 >A=>2V 2V:C 48B8=8 V <0A8 BV;0, ?@87=0G0NBL 1 @07 =0 4>1C 01> 3 @078 =0 B8645=L 3 4=V ?V4@O4. &O 4>70 2V4?>2V40T ?@81;87=> 150 <3/<2 B@8<5B>?@82 AC;LD0<5B>:A07>;C. 0:A8<0;L=V 4>1>2V 4>78 B@8 <5B>?@8

A>I;82V 3@C?8 ?0FVT=BV2

0FVT=B0< V7 ?>@CH5==O< DC=:FVW =8@>: 4>7C <>6=0 ?V418@0B8 70 B0:>N AE5<>N (4>@>A;V V 4VB8 2V:>< 2V4 12 @>:V2):

V25=L :@50B8=V=C C A8@>20BFV :@>2V	>1>20 4>70 (% 2V4 728G09=>W 4>78)	'0AB>B0 70AB>AC20==O
;V@5=A ;V@5=A		
:@50B8=V=C, <:/E2 :@50B8=V=C, □<>;L/;		
> 25 '>;>2V:8: < 265	100	>6=V 12 3>48=
V=:8: < 175		

15-25	'>;>2V:8: 265-620 V=:8: 175-400	50	>6=V 12 01> 24 3>48=8
< 15	'>;>2V:8: > 620 V=:8: > 400	!;V4 C=8:0B8 70AB>AC20==O ?@5?0@0BC, :@V< 28?04:V2, :>;8 ?@>2>48BLAO 35 <>4V0;V7.	

8 ?;07<>2>W :=F5=B@0FVW AC;LD0<5B>:A07>;C @5:;<5=4CTBLAO ?@>2>48B8 G5@57 2-3 4=V
;V:C20==O (G5@57 12 3>48= ?VA;O ?@89> /:I> ?;07<>20 :=F5=B@0FVO AC;LD0<5B>:A07>;C
4>AO30T 150 ;V:C20==O A;V4 ?@87C?8=8B8 4> B>3> G0AC, ?>:8 :=F5=B@0FVO AC;LD0
<5B>:A07>;C =5 7<5=H8BLAO 4> 120
0FVT=B8, O:8< @53C;O@=> ?@>2>48BLAO 35<>4V0;V7, ?>28==V >B@8 50 % 2V4 728G09=>W 4>78
?@5?0@0BC ?5@54 35<>4V0;V7>< V ?>;>28=C 2V4 70AB>A>20=>W 4>78 ?VA;O 70:V=G5==O FVTW
?@>F54C@8. 5<>4V0;V7 B@820T 4 3>48=8, ?@>BO3>< O:8E 7 >@30=V748BLAO 44 % B@8<5B>?@8
>A>1;82>N >15@56=VABN A;V4 70AB>A>2C20B8 □VA5?B>;® ?0FVT=B0< ;VB=L>3> 2V:C, >A:V;L:8
C FVTW :0B53>@VW ?0FVT=V2 G0ABVH5 @>72820NBLAO ?>1VG=V @50:FVW, >A>1;82> 2>AV1 7
=8@:>2>N 01> ?5GV=:>2>N =54>AB0B=VABN 01> ?@8 AC?CB=L>AC20==V V=H8E ;V:0@AL:8E
70A>1V2.

VB8.

@5?0@0B 70AB>A>2CNBL 4;O ;V:C20==O 4VB59 2V:< 2V4 6 @>:V2. VBO< 4> 6 @>:V2 70
=5>1EV4=>ABV 70AB>A>2CNBL V=HV ;V:0@AL:V D>@<8 ?@5?0@0BC (ACA?5=7VO).

5@54>7C20==O.

52V4><>, O:0 4>70 VA5?B>;C® <>65 1CB8 =5157?5G=>N 4;O 68BBO. @8 ?5@54>7C20==V AC;LD0=V;O
AB5@V30TBLAO 2V4ACB=VABL 0?5B8BC, :>;V:>?>4V1=89 1V;L, =C4>B0, 1;N20==O, 4V0@50, 70?0
<>@>G5==O, 3>;>2=89 1V;L, A>;=;82VABL, 2B@0B0 A2V4><>ABV. >65 7028B8AO ?@>?0A=8FO, 35
<0BC@VO B0 :@8AB0;C@VO, ?@8 E@>=VG=>7C20==V <>65 @>728=CB8AO ?@83=VG5==O
DC=:FVW :VAB:>2>3><>7:C, 35?0B8B.

@8 3>AB@>7C20==V B@8<5B>?@8

@8 ?>O2V A87C20==O =5>1EV4=> ?@8?8=8B8 70AB>AC20==O ?@5?0@0BC, 28:;8:0B8 1;N20==O,
?@89=OB8 25;8:C :V;L:VABL @V48=8, O:I> 4VC@57 =54>AB0B=V9, 0 DC=:FVO =8@>: =>@<0;L=0.
V4:8A;5==O A5GV ?@8A:>@8BL 282545==O B@8<5B>?@8=B@>;N20B8 :0@B8=C :@>2V,
5;5:B@>;VB8 A8@>20B:8 B0 V=HV 1V>EV:07=8:8 E2>@>3>. @8 ?>O2V CH:>465==O :VAB:>2>3>
<>7:C 01> A8AC20B8 B8?>25 C B0:8E 28?04:0E ;V:C20==O. 5<>4V0;V7 <0;>5D5:B82=89.

5@8B>=50;L=89 4V0;V7 =55D5:B82=89.

@8 E@>=VG=>B@CT==V A?>AB5@V30TBLAO ?@83=VG5==O DC=:FVW A?8==>3><>7:C,
<0=VD5ABCNGV B@><1>F8B>?5=VO, ;59:>?5=VO 01> <530;>1;0AB=0 0=5AC20B8 ;59:>2>@8= (5-15
<3 =0 4>1C).

>1VG=V @50:FVW.

09G0ABVHV =51060=V @50:FVW ?V4 G0A ;V:C20==O VA5?B>;×® 7 1>:C B@02=>3> B@0:BC
(=C4>B0, 1;N20==O, 2V4ACB=VABL 0?5B8BC) B0 H:V@=V 0;5@3VG=V @50:FVW (28A8?,
:@>?82O=:0).

V4:> <>6CBL 28=8:0B8 A8<8, =5157?5G=V 4;O 68BBO: A8=4@< !BV25=A0-6>=A>=0, B>:A8G=89
5?V45@<0;L=89 =5:@>;V7 (A8=4@< 09T;;0), 3>AB@89 =5:@>7 ?5GV=:8.

@8 ;V:C20==V ?@5?0@0B< <>6CBL 28=8:0B8 3@81:>2V V=D5:FVW, B0:V O: :0=484>7.

@V< FL>3>, A5@54 =51060=8E 5D5:BV2 T:

I>:C A8AB5<8 :@>2V B0 ;VW A8AB5<8: 35<>;VB8G=0 01> 0?;0AB8G=0 0=578=>DV;VO, <5B35
<>3>;1V=5?@>B@><1V=5?5=VO, =59B@>?5=VO V B@><1>F8B>?5=VO, 03@0=C;>F8B>7,
?0=F8B>?5=VO 01> ?C@?C@0, 35<>;V7.

I>:C VW A8AB5<8: 0;5@3VG=89 :0@48B, >7=>1, ?V428I5=0 B5AC20==O ?@5?0@0BC, A2VB;>1>07=L,
0=0DV;0:B8G=V @50:FVW (2;;NG0NG8 BO6:V, 703@>7;82V 4;O 68BBO), 0;5@3VG=89 20A:C;VB,
0=3V>=52@>B8G=89 =01@O:, 0;5@3VG=0 H:V@=0 @50:FVO, E2>@>10 (5=;59=0-5=>E0, 7030;L=V
H:V@=V @50:FVW, 70?0;5==O H:V@8 7 2V4H0@C20==O<, 0;5@3VG=V 28A8?8, A8@>20B:>20
E2>@>10.

V4:> 2C7;8:>289 ?5@V0@B5@VWB, 2>2G0:>289 A8=4@>
!8<8 3V?5@GCB;82>ABV 7 1>:C 48E0;L=>W A8AB5<8, 3V?5@5= N=:B828 V A:;5@8 >:0.
I>:C B@02=>3> B@0:BC: 4V0@50, 1V;L C 682>BV, 2V4ACB=VABL 0?5B8BC, =C4>B0 (7 1;N20==O
01> 157), 1;N20==O, >:@5<5<1@0=>7=>3> 5=B5@>:;>VBC, ?A524>48DB5@V9=5 70?0;5==O :8H>:,
3;>A8B, AB<0B8B, ?0=:@50B8B, ?V428I5==O :>=F5=B@0FVW 1V;V@C1V=C, @V2=O ?5GV=:>28E
5=7820BFV.
I>:C 35?0B>1V;V0@=>W A8AB5<8: ?V428I5=89 @V25=L 0B@0=AD5@07, 35?0B8B (V=:>:8 7
E>;5AB0B8G=>N 6>2BO=8F5N), A8=4@> 7=8=:5==O 6>2G=8E ?@>B>:V2, =5:@>7 ?5GV=:8, DC;L
I>:C =8@>: B0 A5G>282V4=8E H;OEV2: 71V;LH5==O 4VC@57C, :@8AB0;C@VO, =8@:>20
=54>AB0B=VABL, V=B5@AB8FV0;L=89 =5D@8B, =5D@>B>:A8G=89 A8=4@> 7 >;V3C@VTN 01>
0=C@VTN, 71V;LH5==O =51V;:>2>3> 07>BC B0 :@50B8=V=C C A8@>20BFV.
>@CH5==O >128= B0 E0@GC20==O: 3V?5@:0;VT=0B@VT@5:AVO, 3V?>3;V:5
>@CH5==O 7 I>:C ?A8EV:8: 45?@5AVO, 30;NF8=0FVW, 3>AB@89 ?A8E>7, 45;V@V9 B0 ?A8E>7 C
?0FVT=BV2 ;VB=L>3> 2V:C.
I>:C =5@2>2>W A8AB5<8: 0?0BVO, 0A5?B8G=89 <5=V=3VB, 0B0:AVO, 3>;>2=89 1V;L, AC4<8,
7=5@2>20=VABL, HC< C 2CE0E, 70?0;5==O ?5@8D5@8G=8E =5@2V2, ?0@5AB57VW, =59@>?0BVO,
C25WB, 70?0<>@>G5==O.
I>:C A8AB5<8 2=CB@VH=L>W A5:@5FVW: AC;LD0=V;0@V4=5=VABL 7 45O:8<8 0=B8B8@5>W4=8<8
?@5?0@0B0<8, A5G>3V==8<8 (0F5B07>;0< V BV0784<), 0 B0:>6 7 ?5@>@0;L=8<8 ?@>B84V015B8G=8
<8 ?@5?0@0B0<8, I> <>65 1CB8 ?@8G8=>N ?5@5E@5A=>W 0;5@3VW.
I>:C H:V@8 V ?V4H:V@=8E B:0=8=: 28A8?, :@>?82O=:0, A25@1V6 H:V@8, D>B>A5=A81V;V70FVO,
?;>;V<>@D=0 5@8B5<0, 45A:20<0B82=89 45@<0B8B; 4C65 @V4:> A8=4@> !BV25=A0-6>=A>=0,
B>:A8G=89 5?V45@<0;L=89 =5:@>;V7.
I>:C A:5;5B=>-<07>2>W A8AB5<8 B0 A?>;CG=>W B:0=8=8: 1V;L C AC3;>10E, <070E, >?8A0=V >:@5
;V7C.
I>:C 48E0;L=>W A8AB5<8, >@30=V2 3@C4=>W ;;VB:8 B0 A5@54>ABV==O: 7048H:0, :0H5;L,
V=DV;LB@0B8 C ;535=OE.
030;L=V @>7;048: A;01:VABL, 2V4GCBBO 2B<8, 157A>==O.
>1VG=V @50:FVW C E2>@8E =0 !: G0AB>B0 ?>1VG=8E @50:FV9, >A>1;82> 28A8?C, 30@OG:8,
;59:>?5=VW B0 ?V428I5==O 0:B82=>ABV 0B@0=AD5@07 C A8@>20BFV C E2>@8E =0 !7=0G=> 28I0,
=V6 C V=H8E E2>@8E.
-V=DV:>20=V ?0FVT=B8 7 G0AB8<8 AC?CB=V<8 70E2>@N20==O<8 B0 WE ;V:C20==O< 70728G09
>B@8DV;0:B8:C 01> ;V:C20==O ?=52<>=VW, A?@8G8=5=>W Pneumocystis carinii (Pneumocystisjirovecii),
V7 70AB>AC20==O< 28A>:8E 4>7 □VA5?B>;C®. :@V< =525;8:>W :V;L:>ABV 4>40B:>28E ?>1VG=8E
5D5:BV2, ?@>DV;L B0:8E 5D5:BV2 C F8E ?0FVT=BV2 T ?>4V1=8< 4> ?@>DV;N C ?>?C;OFVW
?0FVT=BV2, O:V =5 T -V=DV:>20=8<8. 4=0: 45O:V ?>1VG=V 5D5:B8 A?>AB5@V30NBLAO G0ABVH5
(?@81;87=> C 65 % ?0FVT=BV2) V G0AB> T 1V;LH B06:8<8, I> 7C<>2;NT =5>1EV4=VABL C
?5@5@820==V :C@AC ;V:C20==O □VA5?B>;<® C 20-25 % ?0FVT=BV2. >:@5<0, 4>40B:>2> 01> 7
28I>N G0AB>B>N A?>AB5@V30;8AO =86G5707=0G5=V =51060=V @50:FVW.
I>:C A8AB5<8 :@>2V B0 ;VW A8AB5<8: ?5@5206=> =59B@>?5=VO, 0;5 B0:>6 0=5?5=VO,
3@0=C;>F8B>?5=VO B0 B@><1>F8B>?5=VO, 03@0=C;>F8B>7.
I>:C VW A8AB5<8: 30@OG:0, 70728G09 C 7207:C 7V H:V@=8<8 28A8?0==O<8, 0;5@3VG=V @50:FVW,
B0:V O: 0=3V>=52@>B8G=89 =01@O.;, 0=0DV;0:B>W4=V @50:FVW B0 A8@>20B:>20 E2>@>10,
@50:FVW 3V?5@GCB;82>ABV.
>@CH5==O >128= B0 E0@GC20==O: 3V?5@:0;VT□□□-V=DV:>20=8< ?0FVT=B0< =5>1EV4=>
70157?5G8B8 @5B5;L=89 <>=VB>@8=3 @V2=O :0;VN C A8@>20BFV :@>2V; 3V?>=0B@VT3;V:5
>@CH5==O 7 I>:C ?A8EV:8: 3>AB@89 ?A8E>7.
I>:C =5@2>2>W A8AB5<8: =59@>?0BVO (C B>
I>:C >@30=V2 48E0==O: ?=52<>=VB 7 5>78=>DV;L=>N V=DV;LB@0FVTN.
I>:C B@02=>3> B@0:BC: 0=>@5:AVO, =C4>B0 7 1;N20==O< 01> 157, 0 B0:>6 4V0@50, AB<0B8B,
3;>A8B, ?0=:@50B8B.
I>:C 35?0B>1V;V0@=>W A8AB5<8: ?V428I5==O @V2=O ?5GV=:>28E D5@<5=BV2/B@0=A0,
E>;5AB0B8G=0 6>2BO=8FO, BO6:89 35?0B8B.

I>:C H:V@8 V?V4H:V@=8E B:0=8=: <0:C;>-?0?C;L>7=V 28A8?0==O, O:V H284:> <8=0NBL ?VA;O 2V4 D>B>GCB;82VABL, @<=0 5@8B5<0, A8=4@< !BV25=A0-6>=A>=0, B>:A8G=89 5?V45@<0;L=89 =5:@>;V7 (A8=4@>< 09T;;0), ?C@?C@0 (5=;59=0-5=>E0.

I>:C >?>@=>-@CE>2>3> 0?0@0BC: 0@B@0;3VO, ;V7.

I>:C =8@>: B0 A5G>282V4=8E H;OEV2: ?>@CH5==O DC=:FVW =8@>:, 07>B520BFV :@>2V, :@8AB0;C@VO, AC;LD0=V;0®, <>6CBL ?>A8;N20B8 4VC@57, 7>:@5<0 C ?0FVT=BV2 V7 =01@O:0<8, 7C<>2;5=8<8 70E2>@N20==O<8 A5@F52>-AC48==>W A8AB5<8.

>IVG=V @50:FVW, ?>2070=V 7 V=D5:FVTNPneumocystis carinii (Pneumocystisjiroveci), I> A?@8G8=OT ?=52<>F8AB=C ?=52<>=VN (&): BO6:V @50:FVW ?V428I5=>W GCB;82>ABV, H:V@=V 28A8?0==O, 30@OG:0, =59B@>?5=VO, B@><1>F8B>?5=VO, ?V428I5==O @V2=O ?5GV=:>28E B@0=A0, @014>;V7, 3V?>:0;LFVT=0B@VT

@8 70AB>AC20==V 28A>:8E 4>7 2 B5@0?VW ?8AO BO6:V @50:FVW ?V428I5=>W GCB;82>ABV, I> 28 <030;> ?@8?8=5==O ?@89>02;5==V >7=0: ?@83=VG5==O :VAB:>2>3><>7:C ?0FVT=BC A;V4 ?@87=0G8B8 :>@83C20==O =5AB0GV D>;0BC :0;LFVN (5-10 <3/45=L).

"O6:V @50:FVW ?V428I5=>W GCB;82>ABV A?>AB5@V30;8AO C ?0FVT=BV2 7 &, O:8< ?>2B>@=> ?@87=0G0;>AO ;V:C20==O B@8<5B>?@8<< V AC;LD0<5B>:A07>;<< ?VA;O ?5@5@28 C 45:V;L:0 4=V2.

014>;V7 A?>AB5@V30;8 C -?>78B82=8E ?0FVT=BV2, I> ?@89<0NBL :-B@8<>:A07>; 7

?@>DV;0:B8G=>N <5B>N 01> 4;O ;V:C2==O &.

"5@ABV.5 @>:V2.

#<>28 715@V30==O.

15@V30B8 ?@8 B5 °!. 15@V30B8 C =54>ABC?=>

#?0:>2:0.

> 20 B01;5B>: C 1;VAB5@V, ?> 1 1;VAB5@C2 :0@B>==V9 :>@>1FV; ?> 1000 B01;5B>: C :>=B59=5@V.

0B53>@VO 2V4?CA:C.

0 @5F5?B>

8@>1=8:.

01O=VFL:89 D0@<0F52B8G=89 702>4 >;LD0 .".

VAF57=0E>465==O 28@>1=8:0 B0 9>3> 04@5A020465==O 4VO;L=>ABV.

C;. 0@H. 6. V;AC4AL:>3> 5, 95-200, 01O=VF5, >;LI0.