

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

!,:04:

4VNG0 @5G>28=0: lansoprazole;
1 :0?AC;0 ?@07>;C 15 01> 30 <3;
4>?>28=8: FC:>@ AD5@8G=89, <0=VB (421), =0B@VN :@>E<0;L3;V>;OB (B8?), <03=VN :0@1>=0B
;53:89, ?>2V4>=, A0E0@>70, ?>;>:A0<5@, 3V?@><5;>70, <5B0:@8;0B=>3> A>?>;V<5@C 48A?5@AVO,
B0;L:, B@85B8;F8B@0B, A8<5B8:>=.
5;0B8=>20 :0?AC;0 1 B8B0=C 4V>:A84 (171), 70;V70 >:A84 G5@2>=89 (172), 70;V70 >:A84 6>2B89 (172),
?0B5=B>20=89 A8=V9 V (131), 65;0B8=.
5;0B8=>20 :0?AC;0 2 B8B0=C 4V>:A84 (171), 70;V70 >:A84 G5@2>=89 (172), 70;V70 >:A84 6>2B89 (172),
65;0B8=.

V:0@AL:0 D>@<0. □0?AC;8.

A=>2=V DV78:>-EVABV:

B25@4V 65;0B8=>2V :0?AC;8 2 7 :@8H5G:>N B0 :>@?CA<< >@0=652>3> :>;L>@C, I> ?5;5B8 1V;>3>
01> <0965 1V;>3> :>;L>@C (15 <3);
B25@4V 65;0B8=>2V :0?AC;8 1 7 :@8H5G:>N 75;5=>3> B0 :>@?CA<< >@0=652>3> :>;L>@C, I> ?5;5B8
1V;>3> 01> <0965 1V;>3> :>;L>@C (30 <3).

\$0@<0:>B5@0?52B8G=0 3@C?0.

0A>18 4;O ;V:C20==O ?5?B8G=>W 28@07:8 B0 30AB@>57>D0350;L=>W @5D;N:A=>W E2>@>18.
=3V1VB>@8 ?@>B>==>3> =0A>A0. >4 ""% 02!03.

\$0@<0:>;>3VG=V 2;0AB82>ABV.

\$0@<0:>48=0

0=A>?@07>; ?@83=VGCT 0:B82=VABL+/□+-\$-078 ?@>B>==>W ?>2>W >1>;>=:8 H;C=:0. # B0:89
A?>AV1 0=A>?@>;® ?@83=VGCT :V=F52C AB04VN CB2>@5==O :8A;>B8 H;C=:>2>3> A>:C, 7<5=HCT
:V;L:VABL V :8A;>B=VABL H;C=:>2>3> A>:C, 2=0A;V4>: G>3> 7=86CTBLAO H:V4;8289 2?;82
H;C=:>2>3> A>:C =0 A;87>2C >1>;>=:C.

!BC?V=L ?@83=VG5==O 287=0G0TBLAO 4>7>N V B@820;VABN ;V:C20==O. 02VBL @07>20 4>70 30<3
;0=A>?@07>;C ?@83=VGCT A5:@5FVN :8A;>B8 H;C=:>2>3> A>:C =0 70-90 %. >G0B>: 4VW
A?>AB5@V30TBLAO ?@>BO3>< 1-2 3>48= V B@820T 4>18.

\$0@<0:>:V=5B8:0.

0=A>?@07>; 01A>@1CTBLAO C :8H5G=8:C. # 74>@>28E 4>1@>2>;LFV2 ?@8 ?@89>2V AB0=>28BL
0,75-1,15 <3/; V 4>AO30TBLAO ?@>BO3>< 1,5-2 3>48=. 0:A8<0;L=0 :>=F5=B@0FVO C ?;072V B0
1V>4>ABC?=VABL 70;560BL 2V4 :>=:@5B=8E >A>1;82>AB59 ?0FVT=B0 V =5 72V4 G0AB>B8 ?@89>
2O7C20==O ?@5?0@0BC 7 1V;;0<8 ?;07<8 :@>2V AB0=>28BL 98 %.

0=A>?@>7>; 282>48BLAO 7>@30=V72GN V A5G5N (BV;L:8 C 283;04V<5B01>;V BV2
;0=A>?@07>;AC;LD>= V 3V4@>:A8;0=A>?@07>;), ?@8 FL>1C V7 A5G5N 282>48BLAO 21 % 4>78
?@5?0@0BC. 5@V>4 =0?V2282545==O AB0=>28BL 1,5 3>48=8.

5@V>4 =0?V2282545==O ?>4>26CTBLAO C E2>@8E V7 28@065=8<8 ?>@CH5==O<8 DC=:FVW
?5GV=:8 V C ?0FVT=V2 2V:< 2V4 69 @>:V2. # E2>@8E V7 ?>@CH5==O<8 DC=:FVW =8@>:
01A>@1FVO ;0=A>?@07>;C ?@0:B8G=>=5 7

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

>:070==O.

>1@>O:VA=0 ?5?B8G=0 28@07:0 H;C=:0 B0 420=04FOB8?0;>W :8H:8, C B>2O70=V V7 70AB>AC20==O
< =5AB5@>W4=8E ?@>B870?0;L=8E 70A>1V2; 30AB@>57>D0350;L=0 @5D;N:A=0 E2>@>10; A8=4@>
< >;V=35@0-;;VA=>0; 4;O 5@048:0FVW *Helicobacter pylori*(C :<1V=0FVW 7 0=B81V>B8:0<8).

@>B8?>:070==O.

V?5@GCB;82VABL 4> ;0=A>?@07>;C 01> 4> 1C4L-O:>3> V=H>3> :>5=B0 ?@5?0@0BC; >4=>G0A=5 70AB>AC20==O 7 0B070=02V@>; 7;>O:VA=V =>2>CB2>@5==O B@02=>3> B@0:BC.

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

0=A>?@07>;, O: V V=HV V=3V1VB>@8 ?@>B>==>W ?>F5=B@0FVN 0B070=02V@C (V=3V1VB>@C -?@>B5078), 2A<>:BC20==O O:>3> 70;568BL 2V4 H;C=:>2>W :8A;>B=>ABV, B>@>B8?>:070=5 >4=>G0A=5 70AB>AC20==O 0B070=02V@C B0 ;0=A>?@07>;C.

0=A>?@07>; <>65 ?V428IC20B8 C ?;072V :>F5=B@0FVN ?@5?0@0BV2, I> <5B01>;V7CNBLAO CYP34 (20@D0@8=, 0=B8?V@8=, V=4<5B0F8=, V1C?@>D5=, D5=VB>W=, ?@>?@0=>;>;, ?@54=V7>;>=, 4V075?0<, ::0@8B@>

V:0@AL:V 70A>18, I> ?@83=VGCNBL CYP2!19 (D;C2>:A04OBL 4> 7=0G=>3> ?V428I5==O (C 4 @078) :>F5=B@0FVW ;0=A>?@07>;C C ?;072V. @8 >4=>G0A=>AC20==V =5>1EV4=0 :>@5:FVO 4>78 ;0=A>?@07>;C.

=4C:B>@8 CYP2!19 B0 CYP34 (@8D01>N) <>6CBL 7=0G=> 7<5=H8B8 :>F5=B@0FVW ;0=A>?@07>;C C ?;072V. @8 >4=>G0A=>AC20==V =5>1EV4=0 :>@5:FVO 4>78 ;0=A>?@07>;C.

0=A>?@07>; A?@8G8=OT B@820;5 ?@83=VG5==O H;C=:>2>W A5:@5FVW, B>@5B8G=> <>6;8289 2?;82 ;0=A>?@07>;C =0 1V>4>ABC?=VABL ?@5?0@0BV2, 4;O O:8E ?@8 2A<>:BC20==V 7=0G5==O @T 206;828< (:5B>:>=07>;, VB@0:>=07>;, 5DV@8 0;V 70;V70, 483>:A8=).

4=>G0A=5 70AB>AC20==O ;0=A>?@07>;C B0 483>:A8=C <>65 ?@8725AB8 4> ?V428I5=>3> @V2=O 483>:A8=C 2 ?;072V. ">B@V15= @5B5;L=89 <=>VB>@8=3 @V2=O 483>:A8=C 2 ?;072V B0 :>@83C20==O 4>78 483>:A8=C C @07V =5>1EV4=>ABV =0 ?>G0B:C B0 ?VA;O ?@8?8=5==O ;V:C20==O ;0=A>?@07>;>

;V=VG=8E ?@>O2V2 270T<>4V9 ;0=A>?@07>;C 7 0<>:A8F8;V=><=5 A?>AB5@V30;>AO.

!C:@0;LD0B B0 0=B0F84=V 70A>18 <>6CBL 7<5=HC20B8 1V>4>ABC?=VABL ;0=A>?@07>;C, G5@57 I> ;0=A>?@07>; =5>1EV4=> ?@89<0B8

5 28O2;5=> ::V=VG=> 7=0GCI>W 270T<>4VW ?@07>;< B0 =5AB5@>W4=8<8 ?@>B870?0;L=8<8 ;V:0@AL:8<8 70A>10<8.

@8 >4=>G0A=>AC20==V ;0=A>?@07>;C 7 B5>DV;V=> (CYP12, CYP3) 2V47=0G0TBLAO ?> 10 %) ::V@5=AC B5>DV;V=C, 0;5 ::V=VG=5 7=0G5==O WE 270T<>4V9 <0;>9<>2V@=5. @>B5 4;O ?V4B@8 5D5:B82=8E :>F5=B@0FV9 B5>DV;V=C >:@5<8< E2>@8< =5>1EV4=0 :>@5:FVO 4>78 B5>DV;V=C =0 ?>G0B:C 01> ?VA;O ?@8?8=5==O ;V:C20==O ;0=A>?@07>;>

0=A>?@07>; =5 2?;820T=0 D0@<0>:V=5B8:C 20@D0@8=C B0 ?@>B@><1V=>289 G0A.

V428I5==O B0 ?@>B@><1V=>2>3> G0AC <>65 ?@8725AB8 4> :@>2>B5G V =02VBL 4> ;5B0;L=>3> =0A;V4:C.

@8 >4=>G0A=>AC20==V ;0=A>?@07>;C B0 B0:@>;V2V, >A>1;82> C ?0FVT=BV2, O:8< ?@>2>48;8 B@0=A?;0=B0FVN. ">=B@>;N20B8 @V25=L B0:@>;V2V =0 ?>G0B:C B0 ?VA;O ?@8?8=5==O :> <1V=>20=>W B5@0?VW ;0=A>?@07>;>

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

5@54 ?@87=0G5==O< ?@5?0@0BC □0=A>?@>;® A;V4 28;;NG8B8 <>6;82VABL 7;>O:VA=8E =>2>CB2>@5=L C H;C=:C B0 AB@02>E>4V, B>?@5?0@0B <>65 70<0A:C20B8 A8<8 V B0:8< G8=>< 2V4B5@AB8:C, B>G0B:>< B0 ?VA;O 70:V=G5==O :C@AC ;V:C20==O ;0=A>?@07>;< A;V4 ?@>25AB8 5=4>A:>?VG=89 :>=B@>;L 7 1V>?AVTN.

@8 ?@>2545==V :><1V=>20=>W B5@0?VW 7 ::0@8B@>< B0 0<>:A8F8;V=>< 70AB5@565==O I>4> 70AB>AC20==O F8E ;V:0@AL:8E 70A>1V2 =5>1EV4=> 4828B8AO 2 V=AB@C:FVOE 4;O <548G=>3> 70AB>AC20==O ::0@8B@>

@8 70AB>AC20==V 0=B810:B5@V0;L=8E 70A>1V2 <>6;825 28=8=:5==O ?A524><5<1@0=>7=>3> :>;VBC, V=>4V 68BBT2> =5157?5G=>3>, B> 2@0E>2C20B8 F5 ?@8 =002=>ABV C ?0FVT=BV2 4V0@5W.

?0FVT=BV2 V7 =8@:>2>N =54>AB0B=VABN 7207C20==O 7 1V;;0<8 :@>2V 7=86CTBLAO =0 1-1,5 %. # ?0FVT=BV2 7 E@>=VG=>N ?5GV=:>2>N =54>AB0B=VABN ?5@V>4 =0?V2282545==O 7 ?;07<8 :@>2V 71V;LHCTBLAO 2V4 1,5 3>48=8 4> 3,2-7,2 3>48=8 70;56=> 2V4 ABC?5=O ?>@CH5==O DC=:FVW ?5GV=:8. 0FVT=B0< V7 B06>:N ?5GV=:>2>N =54>AB0B=VABN A;V4 7<5=HC20B8 4>7C ?@5?0@0BC. V:C20==O @>7?>G8=0B8 7 ?>;>28=8 707=0G5=>W 4>78, ?>ABC?>2> 71V;LHCNG8 4> @5:>5=4>20=8E 4>7, 0;5 =5 1V;LH5 30 <3 =0 4>1C.

V4 2?;82>< ;0=A>?@07>;C 7=86CTBLAO :8A;>B=VABL H;C=:>2>3> A>;C, I> ?@872>48BL 4>
71V;LH5==O @878:C @>728B:C H;C=:>2>-.8H:>28E V=D5:FV9, A?@8G8=5=8E C<>2=>-.?0B>35==8<8
>@30=V7<0<8, B0:8<8 O: *Salmonella V Campylobacter*.
0FVT=B0< V7 28@07:0<8 H;C=:0 B0 420=04FOB8?0;>W :8H:8 A;V4 2@0E>2C20B8, O: 5BV>;>3VG=89
D0:B>@, <>6;82VABL V=DV:C20==OH. *pylori*. /:I> ;0=A>?@07>; 70AB>A>2C20B8 2 :<<1V=0FVW 7
0=B81V>B8:0<8 4;O 5@048:0FV9=>W B5@0?VW *H. pylori*, A;V4 4>B@8
V:C20==O B0 ?@>DV;0:B8:C ?5?B8G=>W 28@07:8 A;V4 >K568B8 C ?0FVT=BV2, O:V ?>B@51CNBL
B@820;>3> ;V:C20==O =5AB5@>W4=8<8 ?@>B870?0;L=8<8 70A>10<8 () 01> 2E>4OBL 4> 3@C?8
@878:C, =0?@8:;04 ?0FVT=B8 7V H;C=:>2>-.8H:>28<8 :@>2>B5G0<8, ?5@D>@0FVO<8 01> 28@07:0<8
2 0=0<=57V, ?0FVT=B8 ;VB=L>3> 2V:C, ?@8 >4=>G0A=>AC20==V ;V:0@AL:8E 70A>1V2, O:V
?V428ICNBL <>6;82VABL @>728B:C 70E2>@N20=L 25@E=VE 2V44V;V2 H;C=:>2>-.8H:>2>3> B@0:BC
(:>@B8:>AB5@>W48 01> 0=B8:>03C;O=B8), =0O2=VABL BO6:8E AC?CB=VE 70E2>@N20=L 01>
B@820;>3> 70AB>AC20==O <0:A8<0;L=8E @5:><5=4>20=8E 4>7 .
"O6:0 3V?><03=VTAB5@V30;0AO C ?0FVT=BV2, O:V 70AB>A>2C20;8 V=3V1VB>@8 ?@>B>==>W ?>
?@07>;, ?@>BO3>< ABV 28?04:V2, ?@>BO3>< @>;C. >6CBL 28=8:0B8 BO6:V ?@>O28 3V?><03=VT
<;N20=VABL, AC4>8, <0@5==O, :>=2C;LAVW, 70?0<>@>G5==O B0 H;C=>G:>20 0@8B=8 <>6CBL
?>G8=0B8AO 4C65 @V7:>. # 1V;LH>ABV ?0FVT=BV2 A8<8 3V?><03=VTW B5@0?VW <03=VT<, 0
B0:>6 ?VA;O ?@8?8=5==O 70AB>AC20==O V=3V1VB>@C ?@>B>==>W ?>
;O ?0FVT=BV2, O:V, V<>2V@=>, >45@6CNBL ?@>;>=3>20=C B5@0?VN 01> 70AB>A>2CNBL
V=3V1VB>@8 ?@>B>==>W ?>4=>G0A=> 7 483>;A8=>< 01> ;V:0@AL:8<8 70A>10<8, I> <>6CBL
A?@8G8=8B8 3V?><03=VT=F5=B@0FVW <03=VN ?5@54 ?>G0B:>< ;V:C20==O V=3V1VB>@0<8
?@>B>==>W ?>48G=> ?@>BO3>< :C@AC B5@0?VW.
=3V1VB>@8 ?@>B>==>W ?>A>1;82> BV, I> 70AB>A>2CNBLAO C 28A>;8E 4>70E B0 ?@>BO3><
B@820;>3> G0AC (1V;LH5 1 @>;C), <>6CBL =57=0G=8< G8=>< ?V428IC20B8 @878: ?5@5;> E@51FV2,
>A>1;82> C ?0FVT=BV2 ;VB=L>3> 2V:C 01> 70 =0O2=>ABV V=H8E 287=0G5=8E D0:B>@V2 @878:C.
57C;LB0B8 5:A?5@8<5=B0;L=8E 4>A;V465=L A2V4G0BL ?@> B5, I> V=3V1VB>@8 ?@>B>==>W ?>
6CBL ?V428IC20B8 7030;L=89 @878: ?5@5;> 10-40 %. 5O:V 7 F8E 28?04:V2 <>6CBL 1CB8 7C
<>2;5=V V=H8<8 D0:B>@0<8 @878:C. 0FVT=B8 2 3@C?V @878:C >AB5?>@>7C <0NBL 7=0E>48B8AO
?V4 =03;O4>< ;V:0@O 2V4?>2V4=> 4> ?>B>G=8E ;V=VG=8E @5:><5=40FV9. >=8 <0NBL A?>6820B8
:0;LFBV9 V 2VB0AB0B=V9 :V;L:>ABV.
'5@57 >1<565=VABL 40=8E I>4> 157?5:8 70AB>AC20==O ;0=A>?@07>;C O: ?V4B@8W B5@0?VW
B@820;VABN 1V;LH5 1 @>;C =5>1EV4=> @53C;O@=> ?@>2>48B8 >FV=:C A?V22V4=>H5==O @878:
/:>@8ABL 4;O 40=>W 3@C?8 ?0FVT=BV2.
0FVT=B8 ;VB=L>3> 2V:C.
V:C20==O 28@07:8 C ?0FVT=BV2 ;VB=L>3> 2V:C ?@0:B8G=> =5 2V4@V7=OTBLAO 2V4 ;V:C20==O C
?0FVT=BV2 <>;>4H>3> 2V:C. >1VG=V @50:FVW B0 ;01>@0B>@=V 73> 2V:C B0:V 6 A0
@5?0@0B 7C. 0FVT=B0< 7 @V4:VA=>N A?04:>2>N =5?5@5=>A878, A8=4@>>< 3;N:>7>-30;0:B>7=>W
<0;L01A>@1FVW G8 =54>AB0B=VABN A0E0@078-V7<0;LB078 =5 A;V4 70AB>A>2C20B8 F59
?@5?0@0B.

0AB>AC20==O C ?5@V>4 203VB=>ABV 01> 3>4C20==O 3@C44N.
?5@V>4 203VB=>ABV B0 3>4C20==O 3@C44N ?@5?0@0B =5 70AB>A>2CNBL.
@8 =5>1EV4=>ABV 70AB>AC20==O ?@5?0@0BC A;V4 ?@8?8=8B8 3>4C20==O 3@C44N.

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.
V4 G0A :5@C20==O 02B>B@0=A?>@B>< 01> V=H8<8 <5E0=V7<0<8 =5>1EV4=> 2@0E>2C20B8
<>6;82VABL 28=8:5==O ?>1VG=8E @50:FV9 7 1>;C =5@2>2>W A8AB5<8 B0 >@30=V2 7>@C, B0:8E
O: 70?0<>@>G5==O, 25@B83>, @>7;048 7>@C B0 A>;82VABL. # F8E AB0=0E 740B=VABL @503C20B8
<>65 7=86C20B8AO.

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

0AB>A>2CNBL 4>@>A;8< 2=CB@VH=L>. 0728G09 4>70 AB0=>28BL 30<3 1 @07 =0 4>1C 70 30-40
E28;8= 4> ?@89> ?@89<0NBL, =5 @>76>2CNG8, 70?820NG8 150-200 <; 2>48. /:I> F5 =5 <>6;82>,
:0?AC;C <>6=0 @>7:@8B8 B0 @>7G8=8B8 WW 2 C =525;8:V9 :V;L:>ABV O1;CG=>3> A>:C
(?@81;87=> 1 ?>2=0 ;>6:0) B0 =5309=> ?@>:>2B=CB8, =5 @>76>2CNG8. "0:C A0F54C@C A;V4
?@>25AB8, O:I> ?@5?0@0B 22>48BLAO G5@57 =07>30AB@0;L=89 7>=4.
8B0==O I>4> 4>7C20==O B0 B5@ 2V4 ;:V=VG=>W A8BC0FVW B0 E0@0:B5@C ?5@51V3C
70E2>@N20==O.
0:A8<0;L=0 4>1>20 4>70 ?@5?0@0BC AB0=>28BL 60<3; 4;O ?0FVT=BV2 V7 ?>@CH5==O< DC=:FVW
?5GV=:8 30<3. # ?0FVT=BV2 V7 A8=4@<<<>>;V=35@0-;;VA>=0 4>78<>6CBL 1CB8 71V;LH5=V.
/:I> ?>B@V1=> ?@89=OB8 2 4>1>2V 4>78, ?0FVT=B ?>28=5= ?@89=OB8 >4=C ?5@54 A=V40=:<, 0
V=HC ?5@54 25G5@5N.
/:I> ?0FVT=B =5 ?@89=O2 ?@5?0@0B C ?@87=0G5=89 G0A, 2V= <0T ?@89=OB8 9>3> O:><>30 H284H5.
4=0:, O:I> 70;8H8;>AO =51030B> G0AC 4> ?@89>W 4>78, ?0FVT=B =5 ?>28=5= ?@89<0B8 ?@>?CI5=C
4>7C.
8@07:0 420=04FOB8?0;>W :8H:8
>70 ?@5?0@0BC 4;O ;V:C20==O 0:B82=>W 28@07:8 AB0=>28BL 30<3 1 @07 =0 4>1C ?@>BO3>< 2-4
B86=V2. >70 4;O ;V:C20==O 28@07>:, A?@8G8=5=8E ?@89><<< =5AB5@>W4=8E ?@>B870?0;L=8E
?@5?0@0BV2, AB0=>28BL 30<3 1 @07 =0 4>1C. V:C20==O B@820T 4-8 B86=V2.
>70 4;O ?@>DV;0:B8:8 28@07>:, A?@8G8=5=8E B@820;8< ;V:C20==O< , 4;O ?0FVT=BV2 3@C?8
@878:C (2V: ?>=04 65 @>:V2 G8 30AB@8B 01> 28@07:0 420=04FOB8?0;>W :8H:8 2 0=0<=57V)
AB0=>28BL 15<3 =0 4>1C. /:I> ;V:C20==O =5 5D5:B82=5, ?@87=0G0NBL 4>7C 30<3 =0 4>1C.
>1@>O:VA=0 ?5?B8G=0 28@07:0 H;C=:0
>70 ?@5?0@0BC 4;O ;V:C20==O 0:B82=>W 28@07:8 AB0=>28BL 30<3 1 @07 =0 4>1C ?@>BO3>< 8
B86=V2. >70 4;O ;V:C20==O 28@07>:, A?@8G8=5=8E ?@89><<< , AB0=>28BL 30<3 1 @07 =0 4>1C
?@>BO3>< 4-8 B86=V2.
>70 4;O ?@>DV;0:B8:8 28@07>:, A?@8G8=5=8E B@820;8< ;V:C20==O< , 4;O ?0FVT=BV2 3@C?8
@878:C (2V: ?>=04 65 @>:V2 G8 30AB@8B 01> 28@07:0 420=04FOB8?0;>W :8H:8 2 0=0<=57V)
AB0=>28BL 15<3 =0 4>1C. /:I> ;V:C20==O =5 5D5:B82=5, ?@87=0G0NBL 4>7C 30<3 =0 4>1C.
0AB@>57>D0350;L=0 @5D;N:A=0 E2>@>10, @5D;N:A=89 57>D03VB
5:<<5=4>20=0 4>70 4;O ;V:C20==O 30AB@>57>D0350;L=>W @5D;N:A=>W E2>@>18 AB0=>28BL 15-30
<3 =0 4>1C. >:@0I5==O A8. 0@B> @>73;040B8 V=482V4C0;L=89 ?V41V@ 4>78. /:I> A8<8 =5 7
<5=HCNBLAO ?@>BO3>< 4 B86=V2 ?@8 70AB>AC20==V 4>78 30<3 =0 4>1C @5:><5=4CTBLAO
?@>2545==O 4>40B:>28E B5ABV2.
@8 A5@54=V9 B0 BO6:V9 D>@<0E 57>D03VBC @5:<<5=4>20=0 4>70 AB0=>28BL 30<3 1 @07
=0 4>1C ?@>BO3>< 4 B86=V2. /:I> 5@>782=89 57>D03VB =5 28;V:>2CTBLAO ?@>BO3>< 4 B86=V2,
B@820;VABL ;V:C20==O<>65 1CB8 242VGV 4>2H>N.
>70 4;O 4>23>AB@>:>2>W ?@>DV;0:B8:8 @5F8482C 5@>782=>3> 57>D03VBC AB0=>28BL 15-30<3 1
@07 =0 4>1C. 57?5:0 B0 5D5:B82=VABL ?V4B@8W B5@0?VW ;0=A>?@07>;< ?V4B25@465=0 4;O 12-
3> ?@89>
@048:0FVO Helicobacter pylori
>70 AB0=>28BL 30<3 ?@5?0@0BC 2 @078 =0 4>1C (?5@54 A=V40=:< B0 ?5@54 25G5@5N). 0FVT=B
?>28=5= ?@89<0B8 ?@5?0@0B @07>< 7 0=B81V>B8:0<8 70 70B25@465=8<8 AE5<0<8 ?@>BO3>< 1-2
B86=V2.
/8=4@><>>;V=35@0-;;VA>=0
>7C ?@5?0@0BC ;V:0@ ?V418@0T V=482V4C0;L=> B0:8< G8=><, I>1 1070;L=0 A5:@5FVO :8A;>B8 =5
?5@528IC20;0 10<<<>;L/3>4. 5:<<5=4>20=0 ?>G0B:>20 4>70 ?@5?0@0BC AB0=>28BL 60<3 1 @07 =0
4>1C ?5@54 A=V40=:> ?0FVT=B ?@89<0T 4>78 1V;LHV, =V6 120<3, B> 9>
8@>:20 B0 ?5GV=:>20 =54>AB0B=VABL
0FVT=B8 7 ?>@CH5==O< DC=:FVW ?5GV=:8 B0 =8@>: ;53:>3> 01> ?>3> ABC?5=O =5 ?>B@51CNBL
:>@83C20==O 4>78.
0FVT=B0< V7 BO6:8<8 ?>@CH5==O<8 DC=:FVW ?5GV=:8 A;V4 ?@89<0B8 =09<5=HV 5D5:B82=V 4>78
?@5?0@0BC B0 =5 1V;LH5 30<3 70 4>1C.
0FVT=B8 ;VB=L>3> 2V:C
@8 70AB>AC20==V ?@5?0@0BC =5<0T =5>1EV4=>ABV :>@83C20B8 4>7C.

VB8.
5 70AB>A>2CNBL 4VBO

5@54>7C20==O.

5<0T ?>2V4<;5=L ?@> 28?04:8 ?5@54>7C20==O ;0=A>?@07>;>@07>289 ?@89>< ?@5?0@0BC 2 4>7V
600 <3 =5 AC?@>2>46C202AO ;V=VG=8<8 ?@>O20<8 ?5@54>7C20==O. @>B5 ?@8 ?5@54>7C20==V
<>6;825 ?>A8;5==O ?@>O2V2 ?>1VG=8E @50:FV9.

V:C20==O. !?5F8DVG=>3> 0=B84>BC =5 VA=CT. 5>4V0;V7 =55D5:B82=89. ;O 7<5=H5==O 2A
<>:BC20==O ?@5?0@0BC =5>1EV4=> ?@89=OB8 0:B82>20=5 2C3V;;O. # @07V ?@89>2>W 4>78
?@>2>48BLAO A8<0B8G=5 B0 ?V4B@8

>1VG=V @50:FVW.

V4 G0A ;V:C20==O G0AB> ?>2V4<;OTBLAO ?@> B0:V ?>1VG=V @50:FVW O: 1V;L C 682>BV,
4V0@5O, =C4>B0; =09G0ABVH5 ?@> 4V0@5N. "0:>6 1V;LH =V6 C 1 % 28?04:V2 ?>2V4<;O;>AO ?@>
3>;>2=89 1V;L.

I>:C A5@F52>-AC48==>W A8AB5<8: AB5=>:0@4VO, F5@51@>20A:C;O@=V 7B5=7VO, V=D0@:B
:0@40, 2V4GCBBO A5@F518BBO, H>: (F8@:C;O@=0 =54>AB0B=VABL), 207>48;0B0FVO.

I>:C B@02=>3> B@0:BC: 0=>@5:AVO, :0@4V>A?07<, E>;5;VBV07, 70?>@, 1;N20==O,
35?0B>B>:A8G=VABL, 6>2B0=8FO, 35?0B8B, :0=484>7 A;87>28E >1>;>=>: B@02=>3> B@0:BC,
ACEVABL C @>BV/A?@030, 48A?5?AVO, 48AD03VO, 2V4@86:0, 57>D0350;L=89 AB5=>7,
57>D0350;L=0 28@07:0, 57>D03VB, 7;L>@C :0;C, <5B5>@87<, ?>;V?8 H;C=:0, 30AB@>5=B5@8B, :>;VB,
H;C=:>2>-.8H:>2V :@>2>B5GV, 1;N20==O 7 4>

I>:C <5B0I>;V7 3V?><03=VT

I>:C 5=4>:@8==>W A8AB5<8: FC:@>289 4V015B, 7>1, 3V?5@3;V:53;V:5

I>:C A8AB5<8 :@>2V B0 ;VW A8AB5<8: 0=5

I>:C :VAB:>2>-<O7>2>W A8AB5<8: 0@B@8B/0@B@0;3VO, <O7>2>-A:5;5B=89 1V;L,

I>:C =5@2>2>W A8AB5<8: 068B0FVO, 0<=57VO, ?V428I5=0 71C4;82VABL, 0?0BVO, 45?@5AVO, 70?0
<>@>G5==O/A8=:>?5, 25@B83>, 30;NF8=0FVW, 35@>6VABL, AB@0E, 7=865==O ;V1V4>,
=5@2>7=VABL, 157A==O, A>;82VABL, B@5>@, ?0@5AB57VW, ?>@CH5==O <8A;5==O,
A?;CB0=VABL A2V4<>ABV.

I>:C 48E0;L=>W A8AB5<8: 7048H:0, :0H5;L, D0@8=3VB, @8=VB, V=D5:FVW 25@E=VE V =86=VE
48E0;L=8E H;OEV2 (1@>=EVB, ?=52<=>VO), 0AB<0, =>A>20 :@>2>B5G0, ;535=520 :@>2>B5G0,
38:02:0.

I>:C H:V@8 B0 ?V4H:V@=>W ;:VB:>28=8: 0=3V>=52@>B8G=89 =01@O:, @<=0 5@8B5<0, B>:A8G=89
5?V45@<0;L=89 =5:@>;V7, A8=4@< !BV25=A0-6>=A>=0, ?>;V<>@D=0 5@8B5<0, 0:=5, 3V?5@5
1;8GGO, 0;>?5FVO, A25@1V6, 28A8?0==O, :@>?82O=:0, ?C@?C@0, ?5B5EVW, 3V?5@3V4@>7,
A2VB;>GCB;82VABL.

I>:C >@30=V2 GCBBO: 70BC<0=5==O 7>@C, 1V;L 2 >G0E, 45D5:B8 ?>;V2 7>@C, HC< C 2CE0E,
3;CE>B0, A5@54=V9 >B8B, 7

I>:C A5G>AB0B52>W A8AB5<8: V=B5@AB8FV0;L=89 =5D@8B, I> <>65 ?@8725AB8 4> =8@:>2>W
=54>AB0B=>ABV, D>@7C@VO, 35<0BC@VO, 0;L1C@CH5==O <5=AB@C0FV9=>3> F8;;C,
71V;LH5==O <>;>G=8E 70;>7/3V=5:<0ABVO, 1>;NGVABL <>;>G=8E 70;>7, VB5=FVO.

><IV=>20=0 B5@0?VO 7 0<>:A8F8;V=>< B0 ;:0@8B@> ?@8 ?@>2545==V :<1V=>20=>W B5@0?VW
;0=A>?@07>;C 7 0<>:A8F8;V=>< B0 ;:0@8B@>< =5<0T A?5F8DVG=8E, E0@0:B5@=8E 4;O :>

<1V=>20=>W B5@0?VW ?>1VG=8E @50:FV9. >1VG=V @50:FVW, I><>6CBL 28=8:0B8 ?@8 :>

<1V=>20=V9 B5@0?VW, E0@0:B5@=V 4;O ;0=c>?@07>;C, 0<>:A8F8;V=C B0 ;:0@8B@>

09G0ABVH8<8 ?>1VG=8<8 @50:FVO<8 C ?0FVT=BV2, O:V >B@8B@V9=C B5@0?VN (;0=c>?@07>;
/:0@8B@>

0I>@0B>@=V ?>:07=8:8: ?V428I5==O @V2=O !", ", ;C6=>W D>AD0B078, :@50B8=V=C, 3;>1C;V=V2,
30<<03;CB0@CH5==O A?V22V4=>H5==O 0;L1C1C;V=V2. "0:>6 2V47=0G0TBLAO ?V428I5==O

/7=865==O @V2=O ;59:>F8BV2, 7ABV 5@8B@>F8BV2, 1V;V@C1V=578=>DV;VO, 3V?5@;V?V45
;VBV2, ?V428I5==O/7=865==O E>;5AB5@8=C, 7=865==O 35<>3;>1V=C, ?V428I5==O @V2=O :0;VN,
A5G>28=8, ?V428I5==O @V2=O 3;N:>:>@B8:>W4V2, ?V428I5==O @V2=O ;V?>?@>B5W4V2 =87L:>W
IV;L=>ABV, ?V428I5==O/7=865==O B@>1>F8BV2, ?V428I5==O @V2=O 30AB@8=C, ?>78B82=89
B5AB =0 ?@8E>20=C :@>2. # A5GV 0;L1C7C@VO, 35<0BC@VO, ?>O20 A>;59.

40=V ?@> ?V428I5==O @V2=O D5@<5=BV2 ?5GV=:8 C ?0FVT=BV2 1V;LH =V6 C 3 @078 2V4
25@E=L>W <56V =>@<8 C :V=FV ;V:C20==O ;0=A>?@07>;<, >4=0: 6>2BO=8FO =5 2V47=0G0;0AL.
=HV: 0=0DV;0:B>W4=V @50:FVW, 0=0DV;0:B8G=89 H>., 0AB5=VO, ?V428I5=0 2B<;N20=VABL,
:0=484>7, 1V;L C 3@C4OE (=5 702648 A?5F8DVG=89), =01@O:8, 30@OG:0, 3@8?>?>4V1=89 A8=4@<,
=5?@8T<=89 70?0E 7 @>B0, V=D5:FVW (=5 702648 A?5F8DVG=V), A;01:VABL.

"5@ABV.3 @>:8.

#<>28 715@V30==O.
15@V30B8 ?@8 B5@83V=0;L=V9 C?0:>2FV.
15@V30B8 C =54>ABC?=>

#?0:>2:0.
> 7 :0?AC; C 1;VAB5@V, ?> 2 01> 4 1;VAB5@8 C :0@B>==V9 C?0:>2FV.
> 14 :0?AC; C 1;VAB5@V, ?>1 01> 2 1;VAB5@8 C :0@B>==V9 C?0:>2FV.
> 4 :0?AC;8 C 1;VAB5@V, ?>1 1;VAB5@C C :0@B>==V9 C?0:>2FV.

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

8@>1=8:.
'!'"" .(.

VAF57=0E>465==O 28@>1=8:0 B0 9>3> 04@5A020465==O 4VO;L=>ABV.
!0=:0;;0@ >CW 81100 <. N7465, "C@5GG8=0.