

PαP°CḡPjP°PePsP»PsPiC-C‡PSC- PIP»P°CÍC,PëPIPsCÍC,C-.

PαP°CḡPjP°PePsPrPëPSP°PjC-PeP°.

P•CÍC†PëC,P°P»PsPíCḡP°Pj бḡ“ C†Pμ CÍPμP»PμPeC,PëPIPsPëPNë C-PSPiC-P±C-C,PSCḡ
P•PIPsCḡPsC,PSPsPiPs P•P°C...PsPíP»PμPSPSCÍ CÍPμCḡPsC,PSPSC-PSCr (PŸP†P—P—PŸ), C%Ps
C...P°CḡP°PeC,PμCḡPëP•CÍC”C,CHCÍCÍ PIPëCÍPSPePsCḡ P°C,,C-PSPSC-CÍC,Cḡ PrPs
PsCÍPSPsPIPsPSPsPiPs P•PIбḡ™ CÍP•CÍCḡC‡PsPiPs CÍP°PNëC,Cr. P’C-PS C,P°PePsP¶
P•PIбḡ™ CÍP•CÍC”C,CHCÍCÍ P• P°P»PsCÍC,PμCḡPëC‡PSPëPj CÍP°PNëC,PSPj
C,CḡP°PSCÍPíPsCḡC,PμCḡP° CÍPμCḡPsC,PSPSC-PSCr, PíCḡPë C†CHPsPjCr
P°C,,C-PSPSC-CÍC,CH PrPs C†C-C”C— PrC-P»CÍPSPePë Cr

1000 CḡP°P•C-PI PSPëP¶C‡P°.

P•CÍC†PëC,P°P»PsPíCḡP°Pj PSPμ PjP°C” P•PsPICÍC-Pj P°P±Ps PjP°C” PrC†P¶Pμ CÍP»P°P±PeC†
P•PrP°C,PSC-CÍC,CH P•PIбḡ™ CÍP•CÍPIP°C,PëCÍCÍ P• PSPëP•PePsCḡ CḡPμC†PμPíC,PSCḡC-PI,
PIPeP»CḡC‡P°CḡC‡Pë CÍPμCḡPsC,PSPSC-PSPsPIC- 5-HT_{1Ph}, 5-HT₂-CḡPμC†PμPíC,PSCḡPë,
PrPsC,,P°PjC-PSPsPIC- D₁- C- D₂-CḡPμC†PμPíC,PSCḡPë, α₁-, α₂-, β-P°PrCḡPμPSPμCḡPiC-C‡PSC-
CḡPμC†PμPíC,PSCḡPë, PiC-CÍC,P°PjC-PSPsPIC- H₁-, Pḡ-C...PsP»C-PSPsCḡPμC†PμPíC,PSCḡPë,
P±PμPSP•PsPrC-P°P•PμPíC-PSPsPIC- C,P° PsPíC-P°C,PSC- CḡPμC†PμPíC,PSCḡPë.

P†PSPiC-P±C†PIP°PSPSCÍ P•PIPsCḡPsC,PSPsPiPs P•P°C...PsPíP»PμPSPSCÍ 5-HT C”
C”PrPëPSPëPj PjPsP¶P»PëPIPëPj PjPμC...P°PSC-P•PjPsPj PrC-C—, CÍPePëPNë PjPsP¶Pμ
PíPsCÍCÍPSCḡPIP°C,Pë C,,P°CḡPjP°PePsP»PsPiC-C‡PSC- C,P° PeP»C-PSC-C‡PSC- PμC,,PμPeC,Pë
PμCÍC†PëC,P°P»PsPíCḡP°PjCr.

PαP°CḡPjP°PePsPrPëPSP°PjC-C‡PSC- PμC,,PμPeC,Pë

P’ PsPrPSPsPjCr PíPsPrPIC-PNëPSPs CÍP»C-PíPsPjCr PíP»P°C†PμP±Ps-
PePsPSC,CḡPsP»CHPsPIP°PSPsPjCr PrPsCÍP»C-PrP¶PμPSPSC- PíPsPeP°P•PSPëPeC-PI P•PḡP” Cr
P•PrPsCḡPsPIPëC... PsCÍC-P± PíPsPrPsPIP¶PμPSPSCÍ C-PSC,PμCḡPIP°P»C† Qtc
(CÍPePsCḡPëPíPsPIP°PSPsPiPs P•P° C,,PsCḡPjCrP»PsCḡ PαCḡC-PrPμCḡC-PeP°) PIC-Pr
PIPëC...C-PrPSPsPiPs P•PSP°C‡PμPSPSCÍ CÍC,P°PSPsPIPëP»Ps 4,3 PjCÍ (90 % P”P†
(PrPsPIC-CḡC‡PëPNë C-PSC,PμCḡPIP°P»): 2,2, 6,4) PíCḡPë P•P°CÍC,PSCÍC†PIP°PSPSC-
P»C-PeP°CḡCÍCHPePsPiPs P•P°CÍPsP±C† Cr PrPsP•C- 10 PjPi/PrPsP±C† C,P° 10,7 PjCÍ (90 %
P”P†: 8,6, 12,8) PíCḡPë P•P°CÍC,PSCÍC†PIP°PSPSC- PrPsP•Pë, PIPëC%PsC— P•P°
C,PμCḡP°PíPμPIC,PëC‡PSCr, бḡ“ 30 PjPi/PrPsP±C† (PrPëPI. CḡPsP•PrC-P»Pë
B«PμCḡPsC,PëPíPsPeP°P•P°PSPSCÍB», B«PḡCÍPsP±P»PëPIPsCÍC,C-
P•P°CÍC,PSCÍC†PIP°PSPSCÍB», B«P’P•P°C”PjPsPrC-CÍ P• C-PSC€PëPjPë
P»C-PeP°CḡCÍCHPePëPjPë P•P°CÍPsP±P°PjPë C,P° C-PSC€C- PIPëPrPë PIP•P°C”PjPsPrC-PNëB»,
B«PμPsP±C-C‡PSC- CḡPμP°PeC†C-C—B», B«PμPμCḡPμPrPsP•C†PIP°PSPSCÍB»).

PḡP»C-PSC-C‡PSP° PμC,,PμPeC,PëPIPsC-CÍC,CH

P’PμP»PëPeC- PrPμPíCḡPμCÍPëPIPsC- PμPíC-P•PsPrPë

P•C,,PμPeC,PëPIPsC-CÍC,CH PμCÍC†PëC,P°P»PsPíCḡP°PjCr Cr P»C-PeC†PIP°PSPSC-
PIPμP»PëPePëC... PrPμPíCḡPμCÍPëPIPsPëC... PμPíC-P•PsPrC-PI Cr PíPsCÍC,CḡPëPNë
PíPμCḡC-PsPr P±C†P»P° PíPsPeP°P•P°PSP° Cr 3 P• 4 PíPsPrPIC-PNëPSPs CÍP»C-PíPëC...,
PíP»P°C†PμP±Ps-PePsPSC,CḡPsP»CHPsPIP°PSPëC..., PePsCḡPsC,PePsCÍC,CḡPsPePsPIPëC... (8-
C,PëP¶PSPμPIPëC...) PrPsCÍP»C-PrP¶PμPSCḡ. Pj PrPsPIPiPsCÍC,CḡPsPePsPIPsPjCr

PrPsCfP»C-PrP¶PµPSPSC- PiC¶PsC,,C-P»P°PeC,PëPePë C¶PµC†PëPrPëPICr 274
PiP°C†C-C"PSC,Pë, C¶PeC- PiC-Pr C†P°Cf PiPsC†P°C,PePsPIPsC— 8-C,PëP¶PSPµPIPsC—
PIC-PrPeC¶PëC,PsC— C,,P°P·Pë PrPsCfP»C-PrP¶PµPSPSC¶ PIC-PrPiPsPIC-P»Pë PSP°
P»C-PeCfPIP°PSPSC¶ PµCfC†PëC,P°P»PsPiC¶P°PjPsPj Cr PrPsP·C- 10 P°P±Ps 20 PjPi/PrPsP±Cr,
P±CrP»Pë C¶P°PSPPrPsPjC-P·PsPIP°PSC- PrP»C¶ PiC¶PsPrPsPIP¶PµPSPSC¶ PiC¶PëPNëPsPjCr
PµCfC†PëC,P°P»PsPiC¶P°PjCr Cr C,C-PNë CfP°PjC-PNë PrPsP·C- P°P±Ps PiP»P°C†PµP±Ps
PiC¶PsC,C¶PiPsPj PiPµC¶C-PsPrCr PrPs 36 C,PëP¶PSC-PI. Pj C†CHbPsPjCr
PrPsCfP»C-PrP¶PµPSPSC- Cr PiP°C†C-C"PSC,C-PI, C¶PeC- PiC¶PsPrPsPIP¶CfPIP°P»Pë
PsC,C¶PëPjCrPIP°C,Pë PµCfC†PëC,P°P»PsPiC¶P°Pj, CfPiPsCfC,PµC¶C-PiP°PICfC¶
CfC,P°C,PëCfC,PëC†PSPs P·PSP°C†CfC%Ps P±C-P»CHbC C,C¶PëPIP°P»PëPNë PiPµC¶C-PsPr
C†P°CfCr PrPs PIPëPSPëPePSPµPSPSC¶ C¶PµC†PëPrPëPICr Cr PjPµP¶P°C...
PSP°CfC,CrPiPSPëC... 36 C,PëP¶PSC-PI Cr PiPsC¶C-PIPSCLIPSPSC- P·C,PëPjPë
PiP°C†C-C"PSC,P°PjPë, C¶PeC- PsC,C¶PëPjCrPIP°P»Pë PiP»P°C†PµP±Ps.

P¶PsC†C-P°P»CHbPSPëPNë C,C¶PëPIPsP¶PSPëPNë C¶PsP·P»P°Pr

P·CfC†PëC,P°P»PsPiC¶P°Pj PIPëC¶PIPëPICfC¶ PµC,,PµPeC,PëPIPSPëPj PrP»C¶
P»C-PeCfPIP°PSPSC¶ CfPsC†C-P°P»CHbPSPsPiPs C,C¶PëPIPsP¶PSPsPiPs C¶PsP·P»P°PrCr C¶Pe
Cr C,C¶CHbPsC... PePsC¶PsC,PePsCfC,C¶PsPePsPIPëC... (12-C,PëP¶PSPµPIPëC...)
PrPsCfP»C-PrP¶PµPSPSC¶C..., C,P°Pe C- Cr 6-PjC-CfC¶C†PSPsPjCr
PrPsCfP»C-PrP¶PµPSPSC-B PiC¶PsC,,C-P»P°PeC,PëPePë C¶PµC†PëPrPëPICr. Pj 24-
C,PëP¶PSPµPIPsPjCr PrPsCfP»C-PrP¶PµPSPSC- PsPiC,PëPjP°P»CHbPSPsC— PrPsP·Pë P±CrP»P°
PiC¶PsPrPµPjPsPSCfC,C¶PsPIP°PSP° PµC,,PµPeC,PëPIPSC-CfC,CHb
PµCfC†PëC,P°P»PsPiC¶P°PjCr Cr PrPsP·P°C... 5, 10 C,P° 20 PjPi.

P°PµPSPµC¶P°P»C-P·PsPIP°PSPëPNë C,C¶PëPIPsP¶PSPëPNë C¶PsP·P»P°Pr

P·CfC†PëC,P°P»PsPiC¶P°Pj Cr PrPsP·P°C... 10 C,P° 20 PjPi/PrPsP±Cr P±CrPI
PµC,,PµPeC,PëPIPSPëPj Cr 4 P· 4 PiP»P°C†PµP±Ps-PePsPSC,C¶PsP»CHbPsPIP°PSPëC...
PrPsCfP»C-PrP¶PµPSPSCb.

P—PiC-PrPSPs P· PsP±b¶™ C"PrPSP°PSPëPjPë PrP°PSPëPjPë C,C¶CHbPsC...
PrPsCfP»C-PrP¶PµPSPSCb P· PiPsPrC-P±PSPëPj PrPëP·P°PNëPSPsPj, PI C¶PePëC... P·P°PiP°P»PsPj
PIP·C¶PI CrC†P°CfC,CHb 421 PiP°C†C-C"PSC,, C¶PeC- P»C-PeCfPIP°P»PëCfC¶
PµCfC†PëC,P°P»PsPiC¶P°PjPsPj, C,P° 419 PiP°C†C-C"PSC,C-PI, C¶PeC- PsC,C¶PëPjCrPIP°P»Pë
PiP»P°C†PµP±Ps, PSP° P»C-PeCfPIP°PSPSC¶ PIC-PrPiPsPIC-P»Pë 47,5 % C,P° 28,9 %
PiP°C†C-C"PSC,C-PI PIC-PrPiPsPIC-PrPSPs, P° C¶PµPjC-CfC-C¶ PSP°CfC,P°P»P° Cr 37,1 % C,P°
20,8 % PiP°C†C-C"PSC,C-PI PIC-PrPiPsPIC-PrPSPs. P¶C,C-PNëPePëPNë PµC,,PµPeC,
CfPiPsCfC,PµC¶C-PiP°PICfC¶ P· PiPµC¶C¶PsPiPs C,PëP¶PSC¶ P»C-PeCfPIP°PSPSC¶.

PµC-PrC,C¶PëPjCrC¶C†PëPNë PµC,,PµPeC, PµCfC†PëC,P°P»PsPiC¶P°PjCr Cr PrPsP·C- 20
PjPi/PrPsP±Cr P±CrPI PiC¶PsPrPµPjPsPSCfC,C¶PsPIP°PSPëPNë Cr

24b¶"76-C,PëP¶PSPµPIPsPjCr C¶P°PSPPrPsPjC-P·PsPIP°PSPsPjCr PrPsCfP»C-PrP¶PµPSPSC-
PiC-PrC,C¶PëPjCrC¶C†PsPiPs PµC,,PµPeC,Cr P»C-PeCfPIP°PSPSC¶, PI C¶PePsPjCr PIP·C¶P»Pë
CrC†P°CfC,CHb 373 PiP°C†C-C"PSC,Pë, C%Ps PIC-PrPiPsPIC-P»Pë PSP°
P»C-PeP°C¶CfCHbPePëPNë P·P°CfC-P± PiC-Pr C†P°Cf PiPsC†P°C,PePsPIPsPiPs 12-
C,PëP¶PSPµPIPsPiPs P»C-PeCfPIP°PSPSC¶ Cr PIC-PrPeC¶PëC,PsPjCr C¶PµP¶PëPjC-.

PhP±CfPµCfPëPIPSs-PePsPjPiC¿P»CHbCfPëPIPSPëPNë C¶PsP·P»P°Pr

Pj C¶P°PSPPrPsPjC-P·PsPIP°PSPsPjCr PiPsPrPIC-PNëPSPs CfP»C-PiPsPjCr PeP»C-PSC-C†PSPsPjCr

PrPsCfP»C-PrP¶PµPSPSC- PµCfC†PëC,P°P»PsPïCfP°Pj Cí PrPsP·C- 20 PjPi/PrPsP±Cf
PïCfPµPrPµPjPsPSCfC,CfCfPïP°PI PIC-PrPjC-PSPSC-CfC,Ch PIC-Pr PïP»P°C†PµP±Ps P·P°
P·P°PïP°P»ChPSPsCf PeC-P»ChPeC-CfC,Cf P±P°P»C-PI P·P° C¶PeP°P»PsCf Y-BOCS
(PëPeP°P»P° PrP»C¶ PsC†C-PSPePë PsP±CfPµCfPëPIPSPs-PePsPjPïCfP»ChCfPëPIPSPsPiPs
CfPµP·P»P°PrCf P™C”P»ChCfChPePsPiPs C- P’CfP°CfPSC-PICfChPePsPiPs
CfPSC-PIPµCfCfPëC,PµC,C-PI, Yale-Brown Obsessive Compulsive Scale) C†PµCfPµP· 12
C,PëP¶PSC-PI P»C-PeCfPïP°PSPSC¶. P\$PµCfPµP·

24 C,PëP¶PSC- PIC-PrPjC-C†P°P»PëCfC¶ PïPµCfPµPIP°PïPë P·P°CfC,PsCfCfPïP°PSPSC¶
PµCfC†PëC,P°P»PsPïCfP°PjCf C¶Pe Cí PrPsP·C- 10 PjPi/PrPsP±Cf, C,P°Pe C- Cí PrPsP·C- 20
PjPi/PrPsP±Cf Cí PïPsCfC-PIPSC¶PSPSC- P· PïP»P°C†PµP±Ps.

P·C,,PµPeC,PëPIPSC-CfC,Ch P»C-PeP°CfCfChPePsPiPs P·P°CfPsP±Cf Cí
PïCfPµC,,C-P»P°PeC,PëC†C- CfPµC†PëPrPëPIC-PI P±CfP»P°
PïCfPµPrPµPjPsPSCfC,CfPµPIP°PSP° PrP»C¶ PµCfC†PëC,P°P»PsPïCfP°PjCf Cí PrPsP·P°C... 10
C- 20 PjPi/PrPsP±Cf Cí PïP°C†C-C”PSC,C-PI, C¶PeC- PIC-PrPïPsPIC-P»Pë PSP°
PµCfC†PëC,P°P»PsPïCfP°Pj Cí

16-C,PëP¶PSPµPIPsPjCf PIC-PrPeCfPëC,PsPjCf PïPµCfC-PsPrC- C,P° P±CfP»Pë
PIPeP»ChC†PµPSC- Cí 24-C,PëP¶PSPµPIPëPNë CfP°PSPPrPsPjC-P·PsPIP°PSPëPNë
PïPsPrPIC-PNëPSPs CfP»C-PïPëPNë PïP»P°C†PµP±Ps-PePsPSC,CfPµP»ChPsPIP°PSPëPNë
PïPµCfC-PsPr.

PαP°CfPjP°PePsPeC-PSPµC,PëPeP°.

PfP±CfPsCfP±C†C-C¶ PïCfP°PeC,PëC†PSPs PïPsPIPSP° C- PSPµ P·P°P»PµP¶PëC,Ch PIC-Pr
PïCfPëPNëPsPjCf C—P¶C-. P¶P°PeCfPëPjP°P»ChPSP° PePsPSC†PµPSC,CfP°C†C-C¶ Cí
PïP»P°P·PjC- PeCfPµPIC- PrPsCfC¶PïP°C”C,ChCfC¶ C†PµCfPµP· 4 PïPsPrPëPSPë PïC-CfP»C¶
PïCfPëPNëPsPjCf. PïPe C- PrP»C¶ CfP°C†PµPjC-C†PSPsPiPs C†PëC,P°P»PsPïCfP°PjCf,
P°P±CfPsP»ChC,PSP° P±C-PsPrPsCfC,CfPïPSC-CfC,Ch PµCfC†PëC,P°P»PsPïCfP°PjCf
PsC†C-PeCfC”C,ChCfC¶ PSP° CfC-PIPSC- PïCfPëP±P»PëP·PSPs 80 %.

P PsP·PïPsPrC-P»

PjC¶PIPSPëPNë PsP±b¶™C”Pj CfPµP·PïPsPrC-P»Cí (Vd, β/F) PïC-CfP»C¶
PïPµCfPµCfP°P»ChPSPsPiPs P·P°CfC,PsCfCfPïP°PSPSC¶ CfC,P°PSPsPIPëC,Ch PIC-Pr 12 PrPs
26 P»/PePi. P’C-PsPrPsCfC,CfPïPSC-CfC,Ch PµCfC†PëC,P°P»PsPïCfP°PjCf
CfC,P°PSPsPIPëC,Ch PïCfPëP±P»PëP·PSPs 80 %. P—Pib¶™C¶P·CfPïP°PSPSC¶
PµCfC†PëC,P°P»PsPïCfP°PjCf C,P° PNëPsPiPs PsCfPSPsPIPSPëC... PjPµC,P°P±PsP»C-C,C-PI P·
P±C-P»PeP°PjPë PeCfPµPIC- PjPµPSC¶Pµ 80 %.

P’C-PsC,CfP°PSCfC,,PsCfPjP°C†C-C¶

Pj PïPµC†C-PSC†C- CíC,PIPsCfCfCfC,ChCfC¶ PjPµC,P°P±PsP»C-C,Pë, C‰Ps
PrPµPjPµC,PëP»ChCfC,ChCfC¶ C,P° PrPëPrPµPjPµC,PëP»ChCfC,ChCfC¶ C- C”
C,,P°CfPjP°PePsP»PsPiC-C†PSPs P°PeC,PëPIPSPëPjPë. PïPe P°P»ChC,PµCfPµPSP°C,PëPIP°
PjPsP¶P»PëPIPµ PsPePëCfPµPSPSC¶ P°P·PsC,Cí P· CíC,PIPsCfPµPSPSC¶Pj N-
PsPeCfPëPrPSPsPiPs PjPµC,P°P±PsP»C-C,Cí. PïPe PjPµC,P°P±PsP»C-C,Pë, C,P°Pe C-
PIPëC...C-PrPSP° CíPïPsP»CíPeP° C†P°CfC,PePsPIPs PIPëPIPsPrC¶C,ChCfC¶ Cí C,,PsCfPjC-
PiP»ChPeCfCfPµPSC-PrC-PI. PµC-CfP»C¶ P±P°PiP°C,PsCfP°P·PsPIPsPiPs
P·P°CfC,PsCfCfPïP°PSPSC¶ CíPµCfPµPrPSC¶ PePsPSC†PµPSC,CfP°C†C-C¶ PrPµPjPµC,PëP»-
C,P° PrPëPrPµPjPµC,PëP»PjPµC,P°P±PsP»C-C,C-PI P·P°P·PIPëC†P°PNë CfC,P°PSPsPIPëC,Ch

PIC-PrPⁱPsPIC-PrPSPs 28-31 % C, P° < 5 % PIC-Pr PePsPSC†PμPSC, C₇P°C†C-C—
PμC†C†PëC, P°P»PsPⁱC₇P°PjC_r. P'C-PsC, C₇P°PSC†C,, PsC₇PjP°C†C-C†
PμC†C†PëC, P°P»PsPⁱC₇P°PjC_r PI PrPμPjPμC, PëP»CHbPsPIP°PSPëPN₂ PjPμC, P°P±PsP»C-C,
PIC-PrP±C†PIP°C"C, CHbC†C† PⁱPsP»PsPIPSPëPj C†PëPSPsPj P·P° PrPsPⁱPsPjPsPⁱPsC₇
C†PëC, PsC...C₇PsPjC_rB CYP2C19. P₇PsP¶P»PëPIP° PSPμP·PSP°C†PSP° C_rC†P°C†C, CHb C_r
PⁱC₇PsC†PμC†C- C-P·PsC,, PμC₇PjPμPSC, C-PI CYP3A4 C, P° CYP2D6.

P·P»C-PjC-PSP°C†C-C†

PμPμC₇C-PsPr PSP°PⁱC-PIPIPëPIPμPrPμPSPSC† (T_{1/2β}) P»C-PeP°C₇C†CHbPePsPⁱPs P·P°C†PⁱPsP±C_r
C†C, P°PSPsPIPëC, CHb PⁱC₇PëP±P»PëP·PSPs 30 PⁱPsPrPëPS. P₇P»C-C₇PμPSC† (Cl_{oral}) PⁱC₇Pë
PⁱPμC₇PsC₇P°P»CHbPSPsPjC_r PⁱC₇PëPN₂PsPjC- C†C, P°PSPsPIPëC, CHb PⁱC₇PëP±P»PëP·PSPs 0,6
P»/C...PI. P' PsC†PSPsPIPSPëC... PjPμC, P°P±PsP»C-C, C-PI PⁱPμC₇C-PsPr
PSP°PⁱC-PIPIPëPIPμPrPμPSPSC† PrPsPICëPëPN₂. P·C†C†PëC, P°P»PsPⁱC₇P°Pj C, P° PN₂PsPⁱPs
PsC†PSPsPIPSC- PjPμC, P°P±PsP»C-C, Pë PIPëPⁱPsPrC†C, CHbC†C† PⁱPμC†C-PSPePsC₇
(PjPμC, P°P±PsP»C-C†PSPëPN₂ CëP»C†C...) C- PSPëC₇PeP°PjPë. P'C-P»CHbCëP° C†P°C†C, PëPSP°
PrPsP·Pë PIPëPⁱPsPrPëC, CHbC†C† C_r PIPëPⁱP»C†P^rC- PjPμC, P°P±PsP»C-C, C-PI C-P·
C†PμC†PμC₇.

P>C-PSC-PN₂PSC-C†C, CHb

P₇C-PSPμC, PëPeP° PμC†C†PëC, P°P»PsPⁱC₇P°PjC_r P»C-PSC-PN₂PSP°. P C-PIPSPsPIP°P¶PSP°
PePsPSC†PμPSC, C₇P°C†C-C† PrPsC†C†PⁱP°C"C, CHbC†C† PⁱC₇PëP±P»PëP·PSPs C†PμC₇PμP·

1 C, PëP¶PrPμPSC₇. P₇PμC₇PμPrPSC† C₇C-PIPSPsPIP°P¶PSP° PePsPSC†PμPSC, C₇P°C†C-C† 50
PSPjPsP»CHb/P» (PIC-Pr 20 PrPs 125 PSPjPsP»CHb/P») PrPsC†C†PⁱP°C"C, CHbC†C† PⁱC₇Pë
PrPsP±PsPIC-PN₂ PrPsP·C- 10 PjPi.

PμP°C†C-C"PSC, Pë P»C-C, PSCHbPsPⁱPs PIC-PeC₂

Pj PⁱP°C†C-C"PSC, C-PI P»C-C, PSCHbPsPⁱPs PIC-PeC_r (PIC-Pr 65 C₇PsPeC-PI)
PμC†C†PëC, P°P»PsPⁱC₇P°Pj PIPëPⁱPsPrPëC, CHbC†C† PⁱPsPIC-P»CHbPSC-CëPμ, PSC-P¶ C_r
PjPsP»PsPrPëC... PⁱP°C†C-C"PSC, C-PI. P₇PëC†C, PμPjPSP° PμPeC†PⁱPsP·PëC†C-C† (AUC) C_r
PsC†C-P± P»C-C, PSCHbPsPⁱPs PIC-PeC_r PSP° 50 % PIPëC%₀P°, PSC-P¶ C_r PjPsP»PsPrPëC...
P·PrPsC₇PsPIPëC... PrPsP±C₇PsPIPSP»CHbC†C-PI (PrPëPI. C₇PsP·PrC-P» B«P₇PⁱPsC†C-P±
P·P°C†C, PsC†C†PIP°PSPSC† C, P° PrPsP·PëB»).

PμPμC†C-PSPePsPIP° PSPμPrPsC†C, P°C, PSC-C†C, CHb

Pj PⁱP°C†C-C"PSC, C-PI P· PⁱPsC₇C_rCëPμPSPSC†Pj C,, C_rPSPeC†C-C— PⁱPμC†C-PSPePë
P»PμPⁱPePsPⁱPs P°P±Ps C†PμC₇PμPrPSCbPsPⁱPs C†C, C_rPⁱPμPSC† C, C†P¶PePsC†C, C-
(PeP»P°C†Pë P₇ C- P' P·P° P₇P°PN₂P»PrPsPj-PμbTM C₇) PⁱPμC₇C-PsPr
PSP°PⁱC-PIPIPëPIPμPrPμPSPSC† P±C†PI C_r PrPIP° C₇P°P·Pë PrPsPICëPëPj, P°
PμPeC†PⁱPsP·PëC†C-C† PSP° 60 % PIPëC%₀PsC₇, PSC-P¶ PI PsC†C-P± C-P·
PSPsC₇PjP°P»CHbPSPsC₇ C,, C_rPSPeC†C-C"C₇ PⁱPμC†C-PSPePë (PrPëPI. C₇PsP·PrC-P»
B«P₇PⁱPsC†C-P± P·P°C†C, PsC†C†PIP°PSPSC† C, P° PrPsP·PëB»).

PkPëC₇PePsPIP° PSPμPrPsC†C, P°C, PSC-C†C, CHb

Pj PⁱP°C†C-C"PSC, C-PI P·C- P·PSPëP¶PμPSPsC₇ C,, C_rPSPeC†C-C"C₇ PSPëC₇PsPe (CL_{cr} 10-53
PjP»/C...PI) PⁱC₇Pë P·P°C†C, PsC†C†PIP°PSPSC- C₇P°C†PμPjC-C†PSPsPⁱPs
C†PëC, P°P»PsPⁱC₇P°PjC_r C†PⁱPsC†C, PμC₇C-PⁱP°PIC†C† PrPsPICëPëPN₂ PⁱPμC₇C-PsPr
PSP°PⁱC-PIPIPëPIPμPrPμPSPSC† C, P° PrPμC%₀Ps P±C-P»CHbCëP° PμPeC†PⁱPsP·PëC†C-C†.

РлPsPSC†PμPSC,СђP°C†C-Cl PjPμC,P°P±PsP»C-C,C-PI Cр PіP»P°P·PjC- PeCђPsPIC- PSPμ
PrPsCѓP»C-PrP¶PμPSP°, P°P»Pμ PjPsP¶Pμ P±CрC,Pe PіC-PrPIPёC%oPμPSPsCђ (PrPёPI.
CђPsP·PrC-P» B«PђPіPsCѓC-P± P·P°CѓC,PsCѓCрPIP°PSPSCЇ C,P° PrPsP·PёB»).

PμPsP»C-PjPsCђC,,C-P·Pj

PμP°C†C-C”PSC,Pe P·C- CѓP»P°P±PePsCђ PjPμC,P°P±PsP»C-C†PSPsCђ C,,CрPSPeC†C-C”Cђ
CYP2C19 PjP°P»Pe PIPrPIC-C†C- PIPёC%oC- PePsPSC†PμPSC,СђP°C†C-C—
PμCѓC†PeC,P°P»PsPіCђP°PjCр Cр PіP»P°P·PjC- PeCђPsPIC-, PSC-P¶ PіP°C†C-C”PSC,Pe P·
PSPsCђPjP°P»CђPSPsCђ C,,CрPSPeC†C-C”Cђ CYP2C19. P—PSP°C†PSPёC... P·PjC-PS
PμPeCѓPіPsP·PeC†C-C— PіCђPe P·PSPёP¶PμPSC-P№ C,,CрPSPeC†C-C— CYP2D6 PSPμ
PIC-PrP·PSP°C†P°P»PsCѓCЇ (PrPёPI. CђPsP·PrC-P» B«PђPіPsCѓC-P±
P·P°CѓC,PsCѓCрPIP°PSPSCЇ C,P° PrPsP·PёB»).

РлP»C-PSC-C†PSC- C...P°CђP°PeC,PμCђPeCѓC,PёPePe.

PμPsPeP°P·P°PSPSCЇ.

P>C-PeCрPIP°PSPSCЇ PIPμP»PePePeC... PrPμPіCђPμCѓPёPIPSPёC... PμPіC-P·PsPrC-PI,
PіP°PSC-C†PSPёC... CђPsP·P»P°PrC-PI P· P°P±Ps P±PμP· P°PіPsCђP°C,,PsP±C-C—,
CѓPsC†C-P°P»CђPSPёC... C,CђPePIPSP¶PSPёC... CђPsP·P»P°PrC-PI (CѓPsC†C-P°P»CђPSP°
C,,PsP±C-Cl), PіPμPSPμCђP°P»C-P·PsPIP°PSPёC... C,CђPePIPSP¶PSPёC... CђPsP·P»P°PrC-PI,
PsP±CѓPμCѓPёPIPSPs-PePsPjPіCр»CђCѓPёPIPSPёC... CђPsP·P»P°PrC-PI.

PμCђPsC,PёPіPsPeP°P·P°PSPSCЇ.

PμC-PrPIPёC%oPμPSP° C†CрC,P»PePIC-CѓC,Ch PrPs PμCѓC†PeC,P°P»PsPіCђP°PjCр P°P±Ps PrPs
C-PSCёPeC... PePsPjPіPsPSPμPSC,C-PI P»C-PeP°CђCѓCђPePsPіPs P·P°CѓPsP±Cр;
PsPrPSPsC†P°CѓPSPμ P»C-PeCрPIP°PSPSCЇ PSPμCѓPμP»PμPeC,PePIPSPёPjPe
PSPμPsP±PsCђPsC,PSPёPjPe C-PSPiC-P±C-C,PsCђP°PjPe PjPsPSPsP°PjC-PSPsPeCѓPёPrP°P·Pe
(C-PSPiC-P±C-C,PsCђPe PђPђPђ) PіCђPsC,PёPіPsPeP°P·P°PSPμ C†PμCђPμP· CђPeP·PePe
CђPsP·PIPёC,PeCр CѓPμCђPsC,PsPSC-PSPsPіPsPіPs CѓPёPSPrCђPsPjCр P·C-
P·P±CрPrP¶PμPSPSCЇPj, C,CђPμPjPsCђPsPj, PіC-PіPμCђC,PμCђPjC-C”Cђ C,PsC%oPs (PrPёPI.
CђPsP·PrC-P» B«P·P·P°C”PjPsPrC-Cl P· C-PSCёPePjPe P»C-PeP°CђCѓCђPePePjPe
P·P°CѓPsP±P°PjPe C,P° C-PSCёC- PIPёPrPe PIP·P°C”PjPsPrC-P№B»); PePsPjP±C-PSP°C†C-Cl
PμCѓC†PeC,P°P»PsPіCђP°PjCр P· PsP±PsCђPsC,PSPёPjPe C-PSPiC-P±C-C,PsCђP°PjPe PђPђPђ-Pђ
(PSP°PіCђPePeP»P°Pr, PjPsPeP»PsP±PμPjC-PrPsPj) P°P±Ps PsP±PsCђPsC,PSPёPj
PSPμCѓPμP»PμPeC,PёPIPSPёPj C-PSPiC-P±C-C,PsCђPsPj PђPђPђ P»C-PSPμP·PsP»C-PrPsPj
PіCђPsC,PёPіPsPeP°P·P°PSP° C†PμCђPμP· CђPeP·PePe PIPёPSPёPePSPμPSPSCЇ
CѓPμCђPsC,PsPSC-PSPsPіPsPіPs CѓPёPSPrCђPsPjCр (PrPёPI. CђPsP·PrC-P»
B«P·P·P°C”PjPsPrC-Cl P· C-PSCёPePjPe P»C-PeP°CђCѓCђPePePjPe P·P°CѓPsP±P°PjPe C,P°
C-PSCёC- PIPёPrPe PIP·P°C”PjPsPrC-P№B»).

P·CѓC†PeC,P°P»PsPіCђP°Pj PіCђPsC,PёPіPsPeP°P·P°PSPёP№ PіP°C†C-C”PSC,P°Pj C-P·
PIC-PrPsPjPePj PіPsPrPsPIP¶PμPSPSCЇPj C-PSC,PμCђPIP°P»Cр QT P°P±Ps PICђPsPrP¶PμPSPёPj
CѓPёPSPrCђPsPjPsPj PіPsPrPsPIP¶PμPSPsPіPs C-PSC,PμCђPIP°P»Cр QT;
PμCѓC†PeC,P°P»PsPіCђP°Pj PіCђPsC,PёPіPsPeP°P·P°PSPёP№ CђP°P·PsPj C-P·
P»C-PeP°CђCѓCђPePePjPe P·P°CѓPsP±P°PjPe, ClPeC-, ClPe PIC-PrPsPjPs,

РіРсРрРсРІРІЦІРЧС,СН С-РSC,РмСРІРІР°Р» QТ (РрРёРІ. СРІРсР·РrС-Р» В«Р'Р·Р°С"РјРсРrС-СІ Р·
С-РSC€РёРјРё Р»С-РёР°СРІСІСНРёРёРјРё Р·Р°СІРсР±Р°РјРё С,Р° С-РSC€С- РІРёРrРё
РІР·Р°С"РјРсРrС-Р№В»).

**Р'Р·Р°С"РјРсРrС-СІ Р· С-РSC€РёРјРё Р»С-РёР°СРІСІСНРёРёРјРё Р·Р°СІРсР±Р°РјРё С,Р°
С-РSC€С- РІРёРrРё РІР·Р°С"РјРсРrС-Р№.**

Р±Р°СРІРјР°РёРсРrРёРSP°РјС-С±РSC- РІР·Р°С"РјРсРrС-С—.

РІСРІРсС,РёРіРсРёР°Р·Р·Р°С- РёРсРјР±С-РSP°С†С-С—.

РкРмСІРµР»РµС,РёРІРSC- РSPµРсР±РсСРІС,РSC- С-РSPiС-Р±С-С,РсСРІРё РёРёРёРё.

РµРсРІС-РrРсРјР»СІР»Рё РіСРІс РІРёРіР°РrРёРё СІРµСРІР№РсР·РSPёС... СРІРµР°С-Р№ СІ
РіР°С†С-С"РSC,С-РІ, СІРёС- РіСРёРёР№РјР°Р»РёР» РёРё РёРrР—Р—Рё СІ РёРсРјР±С-РSP°С†С-С— Р·
РSPµСІРµР»РµС,РёРІРSPёРј РSPµРсР±РсСРІС,РSPёРј РrРёРёРё, С,Р° СІ
РіР°С†С-С"РSC,С-РІ, СІРёС- С%РсР№РSPс Р·Р°С-РSC±РёР»Рё Р»С-РёСІРІР°РSPSCІ
РёРrР—Р—Рё С- СРІРсР·РіРсР±Р°Р»Рё РіСРІСРёР№РсРј РrРёРёРіРі (РрРёРІ. СРІРсР·РrС-Р»
В«РІСРІС,РёРіРсРёР°Р·Р·Р°С-РSPSCІВ»). Рј РrРµСІРёРёС... РІРёРіР°РrРёРёР°С...
СРІРсР·РІРіРіСІСІ СІРµСРІС,РсРSC-РSPсРІРёР№ СІРёРSPrСРІСРј.
РёРсРјР±С-РSP°С†С-СІ РµСІС†РёС,Р°Р»Р»РіРіР°РјРіР Р· РSPµСІРµР»РёРёРіРёРё
РSPµРсР±РсСРІС,РSPёРјРё РrРёРёРё РіСРІС,РёРіРсРёРёР°Р·Р·Р°С-РSP°. Р»С-РёСІРІР°РSPSCІ
РµСІС†РёС,Р°Р»Р»РіРіР°РмРіР СІР»С-Рr РіРсР±РёРSP°С,Рё С±РµСРІРµР 14 РrРSC-РІ
РіС-СІР»СІС РІС-РrРјС-РSPё РSPµРсР±РсСРІС,РSPсРіРс РrРёРёРё. Р»С-РёСІРІР°РSPSCІ
РSPµСІРµР»РёРё РSPµРсР±РсСРІС,РSPёРјРё РrРёРёРё СІР»С-Рr
РіРсР±РіРSP°С,Рё РSPµ СРІР°РSC-СРµ РSC-РІ С±РµСРІРµР 7 РrРSC-РІ РіС-СІР»СІС
РіСРіРіРіРіРSPµРSPSCІ РіСРіРёР№РсРјРіР РµСІС†РёС,Р°Р»Р»РіРіРаРјРіР.

РёР±Р±РсСРІС,РSPёР№ СІРµР»Р»РµС,РёРІРSPёР№ С-РSPiС-Р±С-С,РсСРІ РёРёРёРё С,РёРіРёРё Рё
(РјРсРёР»Р»РсР±РµС-Рr).

РSPµСРІРµР СРІРёР·РёРё СРІРсР·РІРёС,РёСІ СІРµСРІС,РсРSC-РSPсРіРсРіС СІРёРSPrСРІСРјРіР
РёРсРјР±С-РSP°С†С-СІ РµСІС†РёС,Р°Р»Р»РіРіРаРмР Р· С-РSPiС-Р±С-С,РсСРІРсР РёРёРёРё
С,РёРіРіР Р, С,Р°РёРёРі СІРё РјРсРёР»Р»РсР±РµС-РSP±РµС-Рr, РіСРІС,РёРіРсРёРёР°Р·Р·Р°С-РSP°
(РрРёРІ. СРІРсР·РrС-Р» В«РІСРІС,РёРіРсРёРёР°Р·Р·Р°С-РSPSCІВ»). РіРёС%Рс РrРсРІРµРРµРSP°
РSPµРсР±С...С-РrРSC-СІС,СН С†С-С"С— РёРсРјР±С-РSP°С†С-С—, СІРіРіРсР±Р°С,РёСІ
СІР»С-Рr РіСРіРёР·РSP°С±Р°С,Рё РјС-РSC-РјР»»СНРSC- СРІРёРёРсРјРSPrРсРІР°РSC-
РrРсР·Рё Р· СРІРµС,РµР»»СНРSPёРј РёР»С-РSC-С±РSPёРј РјРсРSC-С,РсСРІРіРіРсРј.

РёР±Р±РсСРІС,РSPёР№ РSPµСІРµР»РµС,РёРІРSPёР№ С-РSPiС-Р±С-С,РсСРІ РёРёРёРё
(Р»С-РSPµР·РсР»С-Рr).

РёРSC,РёР±С-РсС,РёРё Р»С-РSPµР·РсР»С-Рr С" РсР±РсСРІС,РSPёРј
РSPµСІРµР»РёРё Р·РSPiС-Р±С-С,РсСРІРсР РёРёРёРё, С,РсРјРіР Р№РсРіРс РSPµ
СІР»С-Рr Р·Р°СІС,РсСІРсРІСІРІР°С,Рё РіР°С†С-С"РSC,Р°Рј, СІРёС- РсС,СРІРіРіСІСН,СН
РµСІС†РёС,Р°Р»Р»РіРіРаРм РіРіРіРіР. РіРёС%Рс РёРсРјР±С-РSP°С†С-СІ РІРёСІРІР»СІС"С,СНСІСІ
РSPµРсР±С...С-РrРSPсС, Р·Р°СІС,РсСІСІРІР°РSPSCІ СІР»С-Рr СРІРсР·РіРіРіРіРіР
РјС-РSC-РјР»»СНРSPёРј РrРсР·Р°РјР С,Р° РіС-Рr СРІРµС,РµР»»СНРSPёРј
РёР»С-РSC-С±РSPёРј РёРсРSC,СРІРсР»РјР (РрРёРІ. СРІРсР·РrС-Р»
В«РІСРІС,РёРіРсРёРёР°Р·Р·Р°С-РSPSCІВ»).

$P_k P_\mu P_s P \pm P_s C \bar{H} P_s C, P S P \bar{e} P N_\infty$ $C \bar{I}' P_\mu P \gg P_\mu P_e C, P \bar{e} P I P S P \bar{e} P N_\infty$ $C - P S P i C - P \pm C - C, P_s C \bar{H} P_h P_h P_h C, P \bar{e} P i C \acute{e}$
 P' ($C \bar{I}' P_\mu P \gg P_\mu P_i C - P \gg C - P S$).

$P_h P_s P_j P \pm C - P S P^\circ C \dagger C - C \bar{I} C - P \cdot C \bar{I}' P_\mu P \gg P_\mu P_i C - P \gg C - P S P_s P_j$ ($P S P_\mu P_s P \pm P_s C \bar{H} P_s C, P S P \bar{e} P N_\infty$
 $C - P S P i C - P \pm C - C, P_s C \bar{H} P_h P_h P_h C, P \bar{e} P i C \acute{e} P'$) $P I P \bar{e} P_j P^\circ P_i P^\circ C''$ $P_s P \pm P_\mu C \bar{H} P_\mu P \bar{I} P S P_s C \bar{I}' C, C -$
 $C \dagger P_\mu C \bar{H} P_\mu P \cdot C \bar{H} P \bar{e} P \cdot P \bar{e} P_e C \bar{H} P_s P \cdot P I P \bar{e} C, P_e C \bar{r} C \bar{I}' P_\mu C \bar{H} P_s C, P_s P S C - P S P_s P I P_s P_i P_s$
 $C \bar{I}' P \bar{e} P S P_r C \bar{H} P_s P_j C \bar{r}$.

$P \check{Y} P_\mu P \gg P_\mu P_i C - P \gg C - P S$ $C \bar{r} P_r P_s P \cdot P^\circ C \dots P_r P_s$ $10 P_j P_i / P_r P_s P \pm C \bar{r} P I P_e P \gg C \bar{H} C \dagger P S P_s,$
 $P \pm P_\mu P \cdot P_i P_\mu C \dagger P S P_s P \cdot P^\circ C \bar{I}' C, P_s C \bar{I}' P_s P i C \bar{r} P I P^\circ P i C \bar{I}' C \bar{I} C \bar{I} C \bar{H} P^\circ P \cdot P_s P_j C - P \cdot C \bar{H} P^\circ C \dagger P_\mu P_j C - C \dagger P S P \bar{e} P_j$
 $C \dagger P \bar{e} C, P^\circ P \gg P_s P_i C \bar{H} P^\circ P_j P_s P_j$.

$P_\mu P_s P_r P_s P I P \bar{I} P_\mu P S P S C \bar{I} C - P S C, P_\mu C \bar{H} P I P^\circ P \gg C \acute{e} Q T$.

$P \propto P^\circ C \bar{H} P_j P^\circ P_e P_s P_e C - P S P_\mu C, P \bar{e} C \dagger P S C - C, P^\circ C,$ $P^\circ C \bar{H} P_j P^\circ P_e P_s P_r P \bar{e} P S P^\circ P_j C - C \dagger P S C -$
 $P_r P_s C \bar{I}' P \gg C - P_r P \bar{I} P_\mu P S P S C \bar{I} C P_\mu C \bar{I}' C \dagger P \bar{e} C, P^\circ P \gg P_s P_i C \bar{H} P^\circ P_j C \bar{r} P I P_e P_s P_j P \pm C - P S P^\circ C \dagger C - C - P \cdot$
 $C - P S C \bar{e} P \bar{e} P_j P \bar{e} P \gg C - P_e P^\circ C \bar{H} C \bar{I}' C \bar{H} P_e P \bar{e} P_j P \bar{e} P \cdot P^\circ C \bar{I}' P_s P \pm P^\circ P_j P \bar{e}, C \bar{I} P_e C - P_i P_s P_r P_s P I P \bar{I} C \bar{r} C \bar{H} C, C \bar{H}$
 $C - P S C, P_\mu C \bar{H} P I P^\circ P \gg Q T, P S P_\mu P_i C \bar{H} P_s P_i P_s P_r P \bar{e} P \gg P \bar{e}.$ $P_k P_\mu P_j P_s P \bar{I} P S P^\circ P I P \bar{e} P_e P \gg C \bar{H} C \dagger P^\circ C, P \bar{e} B$
 $P I P \bar{e} P S P \bar{e} P_e P S P_\mu P S P S C \bar{I} C P^\circ P_r P \bar{e} C, P \bar{e} P I P S P_s P_i P_s P_\mu C,, P_\mu P_e C, C \bar{r} P i C - P_r C \bar{I}' C \bar{r} P_j C - C \bar{I}' P S P_s P_i P_s$
 $P \cdot P^\circ C \bar{I}' C, P_s C \bar{I}' C \bar{r} P I P^\circ P S P S C \bar{I} C P_\mu C \bar{I}' C \dagger P \bar{e} C, P^\circ P \gg P_s P_i C \bar{H} P^\circ P_j C \bar{r} C - C \dagger P \bar{e} C \dots$
 $P \gg C - P_e P^\circ C \bar{H} C \bar{I}' C \bar{H} P_e P \bar{e} C \dots P \cdot P^\circ C \bar{I}' P_s P \pm C - P i.$ $P \check{Y} P_s P_j C \bar{r} P_s P_r P S P_s C \dagger P^\circ C \bar{I}' P S P_\mu$
 $P \cdot P^\circ C \bar{I}' C, P_s C \bar{I}' C \bar{r} P I P^\circ P S P S C \bar{I} C P_\mu C \bar{I}' C \dagger P \bar{e} C, P^\circ P \gg P_s P_i C \bar{H} P^\circ P_j C \bar{r} P \cdot P \gg C - P_e P^\circ C \bar{H} C \bar{I}' C \bar{H} P_e P \bar{e} P_j P \bar{e}$
 $P \cdot P^\circ C \bar{I}' P_s P \pm P^\circ P_j P \bar{e}, C \bar{I} P_e C - P_i P_s P_r P_s P I P \bar{I} C \bar{r} C \bar{H} C, C \bar{H} C - P S C, P_\mu C \bar{H} P I P^\circ P \gg Q T, C, P^\circ P_e P \bar{e} P_j P \bar{e} C \bar{I} P_e$
 $P^\circ P S C, P \bar{e} P^\circ C \bar{H} P \bar{e} C, P_j C - C \dagger P S C - P \gg C - P_e P^\circ C \bar{H} C \bar{I}' C \bar{H} P_e C - P \cdot P^\circ C \bar{I}' P_s P \pm P \bar{e} P_e P \gg P^\circ C \bar{I}' C \bar{r} P \dagger P_h C -$
 $P \dagger P \dagger P \dagger, P^\circ P S C, P \bar{e} P i C \bar{I}' P \bar{e} C \dots P_s C, P \bar{e} P_e P \bar{e} (P S P^\circ P_i C \bar{H} P \bar{e} P_e P \gg P^\circ P_r P_i P_s C \dots C - P_r P S C -$
 $C,, P_\mu P S P_s C, C - P^\circ P \cdot P \bar{e} P S C \bar{r}, P i C - P_j P_s P \cdot P \bar{e} P_r, P_i P^\circ P \gg P_s P_i P_\mu C \bar{H} P \bar{e} P_r P_s P \gg), C, C \bar{H} P \bar{e} C \dagger P \bar{e} P_e P \gg C - C \dagger P S C -$
 $P^\circ P S C, P \bar{e} P_r P_\mu P i C \bar{H} P_\mu C \bar{I}' P^\circ P S C, P \bar{e}, P_r P_\mu C \bar{I} P_e C - P i C \bar{H} P_s C, P \bar{e} P_j C - P_e C \bar{H} P_s P \pm P S C -$
 $P \gg C - P_e P^\circ C \bar{H} C \bar{I}' C \bar{H} P_e C - P \cdot P^\circ C \bar{I}' P_s P \pm P \bar{e} (P S P^\circ P_i C \bar{H} P \bar{e} P_e P \gg P^\circ P_r C \bar{I}' P_i P^\circ C \bar{H} C,, P \gg P_s P_e C \bar{I}' P^\circ C \dagger P \bar{e} P S,$
 $P_j P_s P_e C \bar{I}' P \bar{e} C,, P \gg P_s P_e C \bar{I}' P^\circ C \dagger P \bar{e} P S, P_\mu C \bar{H} P \bar{e} C, C \bar{H} P_s P_j C - C \dagger P \bar{e} P S B P_r P \gg C \bar{I} C$
 $P I P S C \bar{r} C, C \bar{H} C - C \bar{e} P S C \bar{H} P_s P I P_\mu P S P S P_s P_i P_s P I P_i P_\mu P_r P_\mu P S P S C \bar{I} C, P_i P_\mu P S C, P^\circ P_j C - P_r P \bar{e} P S,$
 $P_i C \bar{H} P_s C, P \bar{e} P_j P^\circ P \gg C \bar{I} C \bar{H} C - P N_\infty P S C - P \cdot P^\circ C \bar{I}' P_s P \pm P \bar{e}, P \cdot P_s P_e C \bar{H} P_\mu P_j P^\circ P_i P^\circ P \gg P_s C,, P^\circ P S C, C \bar{H} P \bar{e} P S),$
 $P_i P_\mu P I P S C - P^\circ P S C, P \bar{e} P i C - C \bar{I}' C, P^\circ P_j C - P S P S C - P \gg C - P_e P^\circ C \bar{H} C \bar{I}' C \bar{H} P_e C - P \cdot P^\circ C \bar{I}' P_s P \pm P \bar{e}$
 $(P^\circ C \bar{I}' C, P_\mu P_j C - P \cdot P_s P \gg, P i C - P_r C \bar{H} P_s P_e C \bar{I}' P \bar{e} P \cdot P \bar{e} P S, P_j C - P \cdot P_s P \gg P^\circ C \bar{I}' C, P \bar{e} P S),$
 $P i C \bar{H} P_s C, P \bar{e} P_i P_s P_e P^\circ P \cdot P^\circ P S P_\mu$.

$P_h P_s P_j P \pm C - P S P^\circ C \dagger C - C -, C \% P_s P_i P_s C, C \bar{H} P_\mu P \pm C \bar{r} C \bar{H} C, C \bar{H} P_s P \pm P_\mu C \bar{H} P_\mu P \bar{I} P S P_s C \bar{I}' C, C -.$

$P \check{Y} P_\mu C \bar{H} P_s C, P_s P S C - P S P_\mu C \bar{H} P_i C - C \dagger P S C - P \cdot P^\circ C \bar{I}' P_s P \pm P \bar{e}.$

$P_h P_r P S P_s C \dagger P^\circ C \bar{I}' P S P_\mu P \cdot P^\circ C \bar{I}' C, P_s C \bar{I}' C \bar{r} P I P^\circ P S P S C \bar{I} C - P \cdot$
 $C \bar{I}' P_\mu C \bar{H} P_s C, P_s P S C - P S P_\mu C \bar{H} P_i C - C \dagger P S P \bar{e} P_j P \bar{e} P \gg C - P_e P^\circ C \bar{H} C \bar{I}' C \bar{H} P_e P \bar{e} P_j P \bar{e} P \cdot P^\circ C \bar{I}' P_s P \pm P^\circ P_j P \bar{e},$
 $P S P^\circ P_i C \bar{H} P \bar{e} P_e P \gg P^\circ P_r P \cdot P_s P_i C - P_s C - P_r P^\circ P_j P \bar{e} (P I P_e P \gg C \bar{H} C \dagger P^\circ C \bar{H} C \dagger P \bar{e} C, C \bar{H} P^\circ P_j P^\circ P_r P_s P \gg) C, P^\circ$
 $C, C \bar{H} P \bar{e} P_i C, P^\circ P S P^\circ P_j P \bar{e} (P I P_e P \gg C \bar{H} C \dagger P^\circ C \bar{H} C \dagger P \bar{e} C \bar{I}' C \bar{r} P_j P^\circ C, C \bar{H} P \bar{e} P_i C, P^\circ P S), P_j P_s P \bar{I} P_\mu$
 $P_i C \bar{H} P \bar{e} P \cdot P I P_\mu C \bar{I}' C, P \bar{e} P_r P_s C \bar{H} P_s P \cdot P I P \bar{e} C, P_e C \bar{r} C \bar{I}' P_\mu C \bar{H} P_s C, P_s P S C - P S P_s P I P_s P_i P_s$
 $C \bar{I}' P \bar{e} P S P_r C \bar{H} P_s P_j C \bar{r}$.

$P \gg C - P_e P^\circ C \bar{H} C \bar{I}' C \bar{H} P_e C - P \cdot P^\circ C \bar{I}' P_s P \pm P \bar{e}, C \% P_s P \cdot P S P \bar{e} P \bar{I} C \acute{e} C \bar{H} C, C \bar{H} C \bar{I}' C \acute{e} P_r P_s P_j P S P \bar{e} P N_\infty$
 $P_i P_s C \bar{H} C - P_i$.

$P \check{Y} P \dagger P - P - P \check{Y} P_j P_s P \bar{I} C \bar{r} C, C \bar{H} P \cdot P S P \bar{e} P \bar{I} C \bar{r} P I P^\circ C, P \bar{e} C \bar{I}' C \bar{r} P_r P_s P_j P S P \bar{e} P N_\infty P_i P_s C \bar{H} C - P_i$
 $P P_\mu P_e P_s P_j P_\mu P S P_r C \bar{r} C'' C, C \bar{H} C \bar{I}' C \bar{I} C P_s P \pm P_\mu C \bar{H} P_\mu P \bar{I} P S C - C \bar{I}' C, C \bar{H} P_i C \bar{H} P \bar{e}$
 $P_s P_r P S P_s C \dagger P^\circ C \bar{I}' P S P_s P_j C \bar{r} P \cdot P^\circ C \bar{I}' C, P_s C \bar{I}' C \bar{r} P I P^\circ P S P S C - P \gg C - P_e P^\circ C \bar{H} C \bar{I}' C \bar{H} P_e P \bar{e} C \dots$

P·P°CÍPSP±C-PI, C%Ps P·PSPëP¶CíCĤC,CH CÍCíPrPsPjPSPëPNë PíPsCĤC-Pi,
PSP°PíCĤPëPeP»P°Pr P°PSC,PëPrPµPíCĤPµCÍP°PSC,C-PI (C,CĤPëC†PëPeP»C-C‡PSC-,
PŸP†P—P—PŸ), PSPµPNëCĤPsP»PµPíC,PëPeC-PI (C,,PµPSPsC,C-P°P·PëPSPë,
C,C-PsPeCÍP°PSC,PµPSPë, P±CíC,PëCĤPsC,,PµPSPsPSPë), PjPµC,,P»PsC...C-PSCí,
P±CíPíCĤPsPíC-PsPSCí C- C,CĤP°PjP°PrPsP»Cí.

P>C-C,C-PNë, C,CĤPëPíC,PsC,,P°PS.

PhCÍPeC-P»CHPePë P·P°CĤPµC"CÍC,CĤPsPIP°PSPs PIPëPíP°PrPePë PíPsCÍPëP»PµPSPSCİ
PrC-C— PíCĤPë CÍCíPjC-CÍPSPsPjCí P·P°CÍC,PsCÍCíPIP°PSPSC- PŸP†P—P—PŸ C- P»C-C,C-CĤ
P°P±Ps C,CĤPëPíC,PsC,,P°PSCí, CĤPµPePsPjPµPSPPrCíC"C,CHCÍCİ P·
PsP±PµCĤPµP¶PSC-CÍC,CĤ PíCĤPëP·PSP°C†P°C,Pë C†C- P»C-PeP°CĤCÍCHPeC- P·P°CÍPSP±Pë
PsPrPSPsC‡P°CÍPSPs.

P—PIC-CĤPsP±C-PNë.

PhPrPSPsC‡P°CÍPSPµ P·P°CÍC,PsCÍCíPIP°PSPSCİ PŸP†P—P—PŸ C,P° CĤPsCÍP»PëPSPSPëC...
P·P°CÍPSP±C-PI, C%Ps PjC-CÍC,CİC,CH P·PIC-CĤPsP±C-PNë, PjPsP¶Pµ PíCĤPëP·PIPµCÍC,Pë
PrPs PíC-PrPIPëC%PµPSPSCİ C‡P°CÍC,PsC,Pë PíPsP±C-C‡PSPëC... CĤPµP°PeC†C-PNë.

PĥPSC,PëPePsP°PíCáP»CİPSC,Pë.

PĥPsP¶P»PëPIP° P·PjC-PSP° PµC,,PµPeC,C-PI PíPµCĤPsCĤP°P»CHPSPëC...
P°PSC,PëPePsP°PíCíP»CİPSC,C-PI CíPSP°CÍP»C-PrPsPe PsPrPSPsC‡P°CÍPSPsPíPs
P·P°CÍC,PsCÍCíPIP°PSPSCİ P· PµCÍC†PëC,P°P»PsPíCĤP°PjPsPj. PµP°C†C-C"PSC,P°Pj, CİPeC-
PíCĤPëPNëPjP°CĤC,CH PíPµCĤPsCĤP°P»CHPSC- P°PSC,PëPePsP°PíCíP»CİPSC,Pë,
PSPµPsP±C...C-PrPSPs PíCĤPsPIPµCÍC,Pë CĤPµC,PµP»CHPSPëPNë PjPsPSC-C,PsCĤPëPSPi
CÍPëCÍC,PµPjPë P·PíPsCĤC,P°PSPSCİ PeCĤPsPIC- PíPµCĤPµPr C- PíC-CÍP»Cİ
P·P°CÍC,PsCÍCíPIP°PSPSCİ PµCÍC†PëC,P°P»PsPíCĤP°PjCí (PrPëPI. CĤPsP·PrC-P»
B«PhCÍPsP±P»PëPIPSCÍC,C- P·P°CÍC,PsCÍCíPIP°PSPSCİB»).

PhPrPSPsC‡P°CÍPSPµ P·P°CÍC,PsCÍCíPIP°PSPSCİ PSPµCÍC,PµCĤPsC—PrPSPëC...
PíCĤPsC,PëP·P°PíP°P»CHPSPëC... P·P°CÍPSP±C-PI PjPsP¶Pµ PíPsCÍPëP»PëC,Pë
CÍC...PëP»CHPSC-CÍC,CH PrPs PeCĤPsPIPsC,PµC‡C- (PrPëPI. CĤPsP·PrC-P»
B«PhCÍPsP±P»PëPIPSCÍC,C- P·P°CÍC,PsCÍCíPIP°PSPSCİB»).

PĥP»PePsPíPsP»CH.

P·CÍC†PëC,P°P»PsPíCĤP°Pj PSPµ PICÍC,CíPíP°C" Cí C,,P°CĤPjP°PePsPrPëPSP°PjC-C‡PSCí
P°P±Ps C,,P°CĤPjP°PePsPeC-PSPµC,PëC‡PSCí PIP·P°C"PjPsPrC-CĤ P· P°P»PePsPíPsP»PµPj.
PhPrPSP°Pe, CİPe C- P· C-PSCëPëPjPë PíCÍPëC...PsC,CĤPsPíPSPëPjPëB
P»C-PeP°CĤCÍCHPePëPjPë P·P°CÍPSP±P°PjPë, PePsPjP±C-PSP°C†C-Cİ P· P°P»PePsPíPsP»PµPj
C" PSPµP±P°P¶P°PSPsCĤ.

P>C-PeP°CĤCÍCHPeC- P·P°CÍPSP±Pë, C%Ps CÍPíCĤPëC‡PëPSCİCĤC,CH
PíC-PíPsPeP°P»C-C"PjC-CĤ/PíC-PíPsPjP°PíPSC-C"PjC-CĤ.

PkPµPsP±C...C-PrPSP° PsP±PµCĤPµP¶PSC-CÍC,CH PíCĤPë CÍCíPíCíC,PSCHPsPjCí
P·P°CÍC,PsCÍCíPIP°PSPSC- P»C-PeP°CĤCÍCHPePëC... P·P°CÍPSP±C-PI, C%Ps
CÍPíCĤPëC‡PëPSCİCĤC,CH PíC-PíPsPeP°P»C-C"PjC-CĤ/PíC-PíPsPjP°PíPSC-C"PjC-CĤ,
PsCÍPeC-P»CHPePë C†Pµ PíC-PrPIPëC%CíC" CĤPëP·PëPe PIPëPSPëPePSPµPSPSCİ
P·P»PsCİPeC-CÍPSPsC— P°CĤPëC,PjC-C— (PrPëPI. CĤPsP·PrC-P» B«PhCÍPsP±P»PëPIPSCÍC,C-
P·P°CÍC,PsCÍCíPIP°PSPSCİB»).

PαP°CḡPjP°PePsPeC-PSPμC,PëC†PSC- PIP·P°C″PjPsPrC-C—.

*P'PİP»PëPI C-PSC€PëC... P·P°CİPSP±C-PI PSP° C,,P°CḡPjP°PePsPeC-PSPμC,PëPeCé
PμCİC†PëC,P°P»PsPİCḡP°PjCé. PḡPμC,P°P±PsP»C-P·Pj PμCİC†PëC,P°P»PsPİCḡP°PjCř
PiPsP»PsPIPSPëPj C†PëPSPsPj PsPİPsCİPμCḡPμPrPePsPIP°PSPëPNë CYP2C19, P°P»Pμ PI
PjPμC,P°P±PsP»C-P·PjC- C,P°PePsP¶ P·P°PrC-ClıPSC- CYP3A4 C- CYP2D6, C...PsC†P° C-
PjPμPSC€PsCḡ PjC-CḡPsCḡ. P§P°CİC,PëPsPIPëPj PeP°C,P°P»C-P·P°C,PsCḡPsPj
PjPμC,P°P±PsP»C-P·PjCř PsCİPSPsPIPSPsPiPs PjPμC,P°P±PsP»C-C,Cř S-DCT
(PrPμPjPμC,PëP»CḡPsPIP°PSPsPiPs PμCİC†PëC,P°P»PsPİCḡP°PjCř) PİPIP°P¶P°C″C,CḡCİCı
C-P·PsC,,PμCḡPjPμPSC, CYP2D6.*

*PŸCřPjC-CİPSPμ P·P°CİC,PsCİCřPIP°PSPSCı PμCİC†PëC,P°P»PsPİCḡP°PjCř C,P°
PsPjPμPİCḡP°P·PsP»Cř 30 PjPi 1 CḡP°P· PSP° PrPsP±Cř (CYP2C19 C-PSPİC-P±C-C,PsCḡP°)
PİCḡPëP·PiPsPrPëC,Cḡ PrPs PiPsPjC-CḡPSPsPiPs (PİCḡPëP±P»PëP·PSPs PSP° 50 %)
PİC-PrPIPëC‰PμPSPSCı PePsPSC†PμPSC,CḡP°C†C-C— PμCİC†PëC,P°P»PsPİCḡP°PjCř Cř
PİP»P°P·PjC- PeCḡPsPIC-.*

*PŸCřPjC-CİPSPμ P·P°CİC,PsCİCřPIP°PSPSCı PμCİC†PëC,P°P»PsPİCḡP°PjCř C,P°
C†PëPjPμC,PëPrPëPSCř 400 PjPi 2 CḡP°P·Pë PSP° PrPsP±Cř (PiPsPjC-CḡPSPëPNë
P·P°PiP°P»CḡPSPëPNë C-PSPİC-P±C-C,PsCḡ C,,PμCḡPjPμPSC,C-PI) PİCḡPëP·PiPμP»Ps PrPs
PiPsPjC-CḡPSPsPiPs (PİCḡPëP±P»PëP·PSPs PSP° 70 %) P·P±C-P»CḡC€PμPSPSCı
PePsPSC†PμPSC,CḡP°C†C-C— PμCİC†PëC,P°P»PsPİCḡP°PjCř Cř PİP»P°P·PjC- PeCḡPsPIC-.
P PμPePsPjPμPSPPrCřC″C,CḡCİCı P±CřC,Pë PsP±PμCḡPμP¶PSPëPj PİCḡPë
PsPrPSPsC†P°CİPSPsPjCř P·P°CİC,PsCİCřPIP°PSPSC- PμCİC†PëC,P°P»PsPİCḡP°PjCř C-P·
C†PëPjPμC,PëPrPëPSPsPj. PḡPsP¶P»PëPIP° PePsCḡPμPeC†C-Clı PrPsP·Pë (PrPëPI. CḡPsP·PrC-P»
B«PḡCİPsP±P»PëPiPsCİC,C- P·P°CİC,PsCİCřPIP°PSPSCıB»).*

*PŸP°PePëPj C†PëPSPsPj, PİCḡPë PsPrPSPsC†P°CİPSPsPjCř P·P°CİC,PsCİCřPIP°PSPSC-
PμCİC†PëC,P°P»PsPİCḡP°PjCř P· C-PSPİC-P±C-C,PsCḡP°PjPë CYP2C19 (PSP°PİCḡPëPeP»P°Pr
PsPjPμPİCḡP°P·PsP»PsPj, PμP·PsPjPμPİCḡP°P·PsP»PsPj, C,,P»CřPePsPSP°P·PsP»PsPj,
C,,P»CřPiPsPeCİP°PjC-PSPsPj, P»P°PSCİPSPİCḡP°P·PsP»PsPj, C,PëPeP»PsPİC-PrPëPSPsPj)
P°P±Ps C-P· C†PëPjPμC,PëPrPëPSPsPj CİP°C-Pr P±CřC,Pë PsP±PμCḡPμP¶PSPëPjPë,
PİCḡPëP·PSP°C†P°CḡC†Pë PİPμCḡC...PSC- PİCḡP°PSPëC†PSC- PrPsP·Pë
PμCİC†PëC,P°P»PsPİCḡP°PjCř. P—PSPëP¶PμPSPSCı PrPsP·Pë PμCİC†PëC,P°P»PsPİCḡP°PjCř
PjPsP¶Pμ P±CřC,Pë PSPμPsP±C...C-PrPSPëPj P·P°P»PμP¶PSPs PIC-Pr PeP»C-PSC-C†PSPsC—
PsC†C-PSPePë.*

*P'PİP»PëPI PμCİC†PëC,P°P»PsPİCḡP°PjCé PSP° C,,P°CḡPjP°PePsPeC-PSPμC,PëPeCé C-PSC€PëC...
P·P°CİPSP±C-PI. P·CİC†PëC,P°P»PsPİCḡP°Pj C″ C-PSPİC-P±C-C,PsCḡPsPj PμPSP·PëPjCř
CYP2D6.*

*P PμPePsPjPμPSPPrCřC″C,CḡCİCı PsP±PμCḡPμP¶PSC-CİC,Cḡ PİCḡPë
PsPrPSPsC†P°CİPSPsPjCř P·P°CİC,PsCİCřPIP°PSPSC- PμCİC†PëC,P°P»PsPİCḡP°PjCř P·
P»C-PeP°CḡCİCḡPePëPjPë P·P°CİPSP±P°PjPë, C‰Ps PjPμC,P°P±PsP»C-P·CřCḡC,CḡCİCı
PiPsP»PsPIPSPëPj C†PëPSPsPj C†PëPj PμPSP·PëPjPsPj C- PjP°CḡC,Cḡ PICřP·CḡPePëPNë
C,PμCḡP°PİPμPIC,PëC†PSPëPNë C-PSPPrPμPeCİ, PSP°PİCḡPëPeP»P°Pr P·
C,,P»PμPeP°C—PSC-PrPsPj, PİCḡPsPİP°C,,PμPSPsPSPsPj C- PjPμC,PsPİCḡPsP»PsP»PsPj (PİCḡPë
CİPμCḡC†PμPIC-PNë PSPμPrPsCİC,P°C,PSPsCİC,C-), P°P±Ps P· PrPμClıPePëPjPë
P·P°CİPSP±P°PjPë, C‰Ps PİPİP»PëPIP°CḡC,Cḡ PSP° C†PμPSC,CḡP°P»CḡPSCř PSPμCḡPiPsPICř
CİPëCİC,PμPjCř C,P° PjPμC,P°P±PsP»C-P·CřCḡC,CḡCİCı PiPsP»PsPIPSPëPj C†PëPSPsPj
CYP2D6, PSP°PİCḡPëPeP»P°Pr C,P°PePëPjPë P°PSC,PëPrPμPİCḡPμCİP°PSC,P°PjPë ClıPe
PrPμP·PëPİCḡP°PjC-PS, PeP»PsPjC-PİCḡP°PjC-PS C- PSPsCḡC,CḡPëPİC,PëP»C-PS, C,P°PePëPjPë*

Р°РSC,РёРiСГРёС...РsС,РёРёР°РјРё СiРё СђРёСГРiРµСђРёРrРsРS, С,С-РsСђРёРrР°Р·РёРS С-РiР°Р»РsРiРµСђРёРrРsР». РёРsР¶Р»РёРiР° РёРsСђРµСГС-Сi РrРsР·Рё.

РёРsРјР±С-РSP°СГС-Сi Р· РrРµР·РёРiСђР°РјС-РSPsРј Р°Р±Рs РјРµС,РsРiСђРsР»РsР»РsРј РiСђРёР·РiРsРrРёР»° РrРs РrРiРsСђР°Р·РsРiРs Б РiС-РrРiРёС%РµРSPSCi СђС-РiРSCi СГ РiР»Р°Р·РјС- РёСђРsРiС- СГРёС... РrРiРsС... СГСГР±СГС,СђР°С,С-Рi СYP2D6.

Рј РrРsСГР»С-РrР¶РµРSPSCiС... *in vitro* Р±СГР»Рs РiСђРsРrРµРјРјРsРSCГС,СђРsРiР°РSPs, С%Рs РµСГСГРёС,Р°Р»РsРiСђР°Рј СГРiСђРёС±РёРSCiС" СГР»Р°Р±РµРµ РiСђРёРiРSC-С±РµРSPSCi СYP2C19. Р РµРёРsРјРµРSPrСГС"С,СёСГСi РsР±РµСђРµР¶РµРSC-СГС,Сё РiСђРё РsРrРSPsС±Р°СГРSPsРјСГ Р·Р°СГС,РsСГСГРiР°РSPSC- Р· Р»С-РёР°СђСГСёРёРёРё Р·Р°СГРsР±Р°РјРё, С%Рs РјРµС,Р°Р±РsР»С-Р·СГСёС,СёСГСi СYP2C19.

РёСГРsР±Р»РёРiРsСГС,С- Р·Р°СГС,РsСГС±РiР°РSPSCi.

РёРёР¶С±РµР·Р°Р·Р°РSP°С±РµРSC- РsСГРsР±Р»РёРiРsСГС,С- Р·Р°СГС,РsСГСГРiР°РSPSCi СГС,РsСГСГСёС,СёСГСi С,РµСђР°РiРµРiС,РёС±РSPsС— РiСђСГРiРё СГРµР»Р»РµС,РёРiРSPёС... С-РSPiС-Р±С-С,РsСђС-Рi Р·РiРsСђРsС,РSPsРiРs Р·Р°С...РsРiР»РµРSPSCi СГРµСђРsС,РsРSC-РSCГ (РёРГР—Р—Рё).

РµР°СђР°РrРsРёСГР°Р»СёРSP° С,СђРёРiРsР¶РSC-СГС,Сё. Рј РrРµСiРёС... РiР°СГС-С"РSC,С-Рi Р· РiР°РSC-С±РSPёРјРё СђРsР·Р»Р°РSP° РiРsС±Р°С,РёСГ Р»С-РёСГРiР°РSPSCi Р°РSC,РёРrРµРiСђРµСГР°РSC,Р°РјРё РјРsР¶Рµ РiРsСГРёР»Р»РµРSPSCi С,СђРёРiРsР¶РSPsСГС,С-. РµРsРrС-Р±РSP° РiР°СђР°РrРsРёСГР°Р»СёРSP° СђРµР°РёСГС-Сi Р·Р°Р·РiРёС±Р°Рµ Р·РSPёРёС" РiСђРsС,СiРiРsРј РrРiРsС... С,РёР¶РSC-Рi Р»С-РёСГРiР°РSPSCi. Р©РsР± Р·РјРµРSCёРёС,Рё С-РјРsРiС-СђРSC-СГС,Сё РiРёРSPёРёРSPµРSPSCi Р°РSPёСГС-РsРiРµРSPSPsРiРs РµС,,РµРёС,СГ, СђРµРsРјРµРsРјРµРSPrСГСёС,СёСГi РSPёР·СёРёС- РiРsС±Р°С,РёРsРiС- РrРsР·Рё (РrРёРi. СђРsР·РrС-Р» Б«РёРiРsСГС-Р± Р·Р°СГС,РsСГСГРiР°РSPSCi С,Р° РrРsР·РёБ»).

РёС±РrРsРјРSC- РSP°РiР°РrРё. РёРµРsР±С...С-РrРSPs РiС-РrРјС-РSPёС,Рё Р»С-РёР°СђСГСёРёРё Р·Р°СГС-Р± СГ СђР°Р·С-, СiРёС%Рs СГ РiР°СГС-С"РSC,Р° РiРiРµСђРµ РµСђРµСђРiСГiС СГСГРrРsРјРSPёРµ РSP°РiР°Рr Р°Р±Рs СiРёС%Рs РSP°РiР°РrРё С±Р°СГС,С-СёР°СёС,Сё (СГ РiР°СГС-С"РSC,С-Рi Р·С- РiСГС,Р°РSPsРiР»РµРSPёРј РrС-Р°РiРSPsР·РsРј РµРiС-Р»РµРiСГС-С). РёР»С-Рr СГРSPёРёС,Рё Р·Р°СГС,РsСГСГРiР°РSPSCi РёРГР—Р—Рё РiР°СГС-С"РSC,Р°Рј Р· РSPµСГС,Р°Р±С-Р»СёРSPsС РµРiС-Р»РµРiСГС-С"С, Р° РiР°СГС-С"РSC,Р°Рј Р· РёРsРSC,СђРsР»СёРsРiР°РSPsС РµРiС-Р»РµРiСГС-С"С вђ" Р·Р°Р±РµР·РiРµС,Рё РiРёР»С»СёРSPёРµ РSP°РiР»СiРr.

РёР°РSC-С—. РёРГР—Р—Рё СГР»С-Рr Р· РsР±РµСђРµР¶РµРSC-СГС,Сё Р·Р°СГС,РsСГРsРiСГРiР°С,Рё РrР»Сi Р»С-РёСГРiР°РSPSCi РiР°СГС-С"РSC,С-Рi Р· РјР°РSC-С"С/РiС-РiРsРјР°РSC-С"С Рi Р°РSP°РјРµР·С-. РµСђРё РiРsСiРiС- РјР°РSC-Р°РёР°Р»СёРSPsРiРs СГС,Р°РSCГ РёРГР—Р—Рё СГР»С-Рr РiС-РrРјС-РSPёС,Рё.

РiС±РёСђРsРiРёРµ РrС-Р°Р±РµС,, Рј РiР°СГС-С"РSC,С-Рi С-Р· СГСРёСђРsРiРёРј РrС-Р°Р±РµС,РsРј Р»С-РёСГРiР°РSPSCi РёРГР—Р—Рё РјРsР¶Рµ Р·РјС-РSCёРiР°С,Рё РiР»С-РёРµРµРјС-С±РSPёРµ РёРsРSC,СђРsР»Сё. Р"РsР·СГРiР°РSPSCi С-РSCГГР»С-РSCГ С,Р°Р°Р±Рs РiРµСђРsСђР»Р»Сё РiС-РiРsРiР»С-РёРµРµРјС-С±РSPsРiРs Р·Р°СГРsР±СГ

PjPsP¶Pµ PīPsC, CĤPµP±CřPIP°C, Pē PePsCĤPµPeC†C-C—.

PŸCžC—C†PēPr, CĤCžC—C†PēPrP°P»CHPSC- PrCžPjPePē P°P±Ps PeP»C-PSC-C†PSPµ
PīPsPiC-CĤC€PµPSPSCĬ. P°PµPīCĤPµCĤC-CĬ PīPsPIBĤ™ CĬP·P°PSP° P· CĤPēP·PēPePsPj
CĤCřC—C†PēPrP°P»CHPSPēC... PrCřPjPsPe, CĤP°PjPsC, CĤP°PIPjCřPIP°PSPSCĬ C, P°
CĤCřC—C†PēPrCř. PjPµPNē CĤPēP·PēPe C-CĤPSCřC” P°P¶ PrPs PrPsCĤCĬPiPSPµPSPSCĬ
CĤC, C-PNēPePsC— CĤPµPjC-CĤC-C—. PhCĤPeC-P»CHPePē PīPsPeCĤP°C%PµPSPSCĬ
CĤC, P°PSCř PjPsP¶Pµ P±CřC, Pē PSPµ PrPsCĤCĬPiPSCřC, Pµ PīCĤPsC, CĬPiPsPj PīPµCĤC€PēC...
C, PēP¶PSC-PI P»C-PeCřPIP°PSPSCĬ P°P±Ps P±C-P»CHC€Pµ, CĤP»C-Pr CĤPµC, PµP»CHPSPs
CĤPiPsCĤC, PµCĤC-PiP°C, Pē P·P° PīP°C†C-C”PSC, P°PjPē PrPs PīPsPeCĤP°C%PµPSPSCĬ
C—C...PSCĤPsPiPs CĤC, P°PSCř. P°C-PrPsPjPs, C%Ps CĤPēP·PēPe CĤCřC—C†PēPrCř PjPsP¶Pµ
PīC-PrPIPēC%CřPIP°C, PēCĤCĬ PSP° CĤP°PSPSC-C... CĤC, P°PrC-CĬC... PsPrCřP¶P°PSPSCĬ.

P†PSC€C- CĤC, P°PSPē, PīCĤPē CĬPePēC... P·P°CĤC, PsCĤPsPICřCĤC, CH
PµCĤC†PēC, P°P»PsPīCĤP°Pj, C, P°PePsP¶ PjPsP¶CřC, CH P±CřC, Pē PīPsPIBĤ™ CĬP·P°PSC- P·
CĤPēP·PēPePsPj CĤCřC—C†PēPrP°P»CHPSPsC— PīPsPIPµPrC-PSPePē. PĤCĤC-Pj C, PsPiPs,
C, P°PeC- CĤC, P°PSPē PjPsP¶CřC, CH P±CřC, Pē PePsPjPsCĤP±C-PrPSPēPjPē P· PIPµP»PēPePēPj
PrPµPīCĤPµCĤPēPIPSPēPj CĤPsP·P»P°PrPsPj. PjC- P·P°CĤC, PµCĤPµP¶PµPSPSCĬ
CĤC, PsCĤCřCĤC, CHCĤCĬ C, P°PePsP¶ P»C-PeCřPIP°PSPSCĬ PīP°C†C-C”PSC, C-PI P·
C-PSC€PēPjPē PīCĤPēC...C-C†PSPēPjPē CĤPsP·P»P°PrP°PjPē.

PµP°C†C-C”PSC, Pē P· P°PSP°PjPSPµP·PsPj CĤCřC—C†PēPrP°P»CHPSPsC— PīPsPIPµPrC-PSPePē
C%Pµ PrPs PīPsC†P°C, PeCř P»C-PeCřPIP°PSPSCĬ PjP°CĤC, CH PSP°PNēPIPēC%PēPNē
CĤPēP·PēPe CĤCřC—C†PēPrP°P»CHPSPēC... PrCřPjPsPe P°P±Ps CĤCřC—C†PēPrP°P»CHPSPēC...
CĤPīCĤPsP± C- PīPsC, CĤPµP±CřCĤC, CH PīPēP»CHPSPsPiPs CĤPīPsCĤC, PµCĤPµP¶PµPSPSCĬ
PīCĤPsC, CĬPiPsPj P»C-PeCřPIP°PSPSCĬ. PĤPµC, P°P°PSP°P»C-P· PrPsCĤP»C-PrP¶PµPSCĤ P·
PIPēPePsCĤPēCĤC, P°PSPSCĬPj PµCĤC†PēC, P°P»PsPīCĤP°PjCř PIPēCĬPIPēPI
PīC-PrPIPēC%PµPSPēPNē CĤPēP·PēPe CĤCřC—C†PēPrP°P»CHPSPsC— PīPsPIPµPrC-PSPePē
CĤPµCĤPµPr PīP°C†C-C”PSC, C-PI PIC-PePsPj PrPs 25 CĤPsPeC-PI, CĬPeC- PīCĤPēPNēPjP°P»Pē
P°PSC, PēPrPµPīCĤPµCĤP°PSC, Pē, PīPsCĤC-PIPSCĬPSPs P· C, PēPjPē, CĬPeC- PīCĤPēPNēPjP°P»Pē
PīP»P°C†PµP±Ps. PµPēP»CHPSPēPNē PSP°PiP»CĬPr P·P° PīP°C†C-C”PSC, P°PjPē P·
PIPēCĤPsPePēPj CĤPēP·PēPePsPj PsCĤPsP±P»PēPIPs PSPµPsP±C...C-PrPSPēPNē PSP°
PīPsC†P°C, PeCř P»C-PeCřPIP°PSPSCĬ C, P° PīCĤPē P·PjC-PSC- PrPsP·Pē.

PµP°C†C-C”PSC, C-PI C, P° PsCĤC-P±, CĬPeC- P·P° PSPēPjPē PrPsPiP»CĬPrP°CĤC, CH, CĤP»C-Pr
PīPsPīPµCĤPµPrPēC, Pē PīCĤPs PSPµPsP±C...C-PrPSC-CĤC, CH CĤPīPsCĤC, PµCĤPµP¶PµPSPSCĬ
C%PsPrPs P±CřPrCH-CĬPePsPiPs PīPsPiC-CĤC€PµPSPSCĬ CĤC, P°PSCř,
CĤCřC—C†PēPrP°P»CHPSPsC— PīPsPIPµPrC-PSPePē P°P±Ps PrCřPjPsPe C-
PSPµP·PIPēC†PSPēC... P·PjC-PS Cř PīPsPIPµPrC-PSC†C-, P° C, P°PePsP¶ PīCĤPs
PSPµPsP±C...C-PrPSC-CĤC, CH PSPµPīP°PNēPSPsPiPs P·PIPµCĤPSPµPSPSCĬ PrPs
P»C-PeP°CĤCĬ Cř CĤP°P·C- CĤPsP·PIPēC, PeCř C†PēC... CĤPēPjPīC, PsPjC-PI.

PhPeP°C, PēP·C-CĬ/PīCĤPēC...PsPjPsC, PsCĤPSPµ P·P±CžPrP¶PµPSPSCĬ.
P—P°CĤC, PsCĤCřPIP°PSPSCĬ PŸP†P—P—PŸ/PŸP†P—P—PŸPř PīPsPIBĤ™ CĬP·P°PSPµ P·
CĤPsP·PIPēC, PePsPj P°PeP°C, PēP·C-C— BĤ” CĤC, P°PSCř, C%Ps
C...P°CĤP°PeC, PµCĤPēP·CřC”C, CHCĤCĬ PSPµPīCĤPēC”PjPSPēPj PIPēCĤPSP°P¶P»PēPIPēPj
PIC-PrC†CřC, C, CĬPj PSPµCĤPīPsPePsCĤ C, P° PīPsC, CĤPµP±PsCĤ CĤCřC...P°C, PēCĤCĬ C-
C†P°CĤC, Ps CĤCřPīCĤPsPIPsPrP¶CřC”C, CHCĤCĬ PSPµP·PrP°C, PSC-CĤC, CĤ CĤPēPrC-C, Pē
P°P±Ps CĤC, PsCĬC, Pē PSP° PsPrPSPsPjCř PjC-CĤC†C-. PŸP°PePēPNē CĤC, P°PS
PSP°PNēP±C-P»CHC€ C-PjPsPIC-CĤPSPēPNē PīCĤPsC, CĬPiPsPj PīPµCĤC€PēC...
PeC-P»CHPePsC... C, PēP¶PSC-PI P»C-PeCřPIP°PSPSCĬ. P—P±C-P»CHC€PµPSPSCĬ PrPsP·Pē
PjPsP¶Pµ PīPsPiC-CĤC€PēC, Pē CĤC, P°PS PīP°C†C-C”PSC, C-PI, Cř CĬPePēC...

Pj PīP°C†C-C°PSC,C-PI, C‡PpEC- PīC‡PēPNēPjP°C‡C,C‡ PŸP†P—P—PŸ PsPrPSPsC†P°C†PSPs C-P·
C†PμC‡PsC,PsPSC-PSPμC‡PiC-C†PSPēPjPē P»C-PeP°C‡C†C‡PePePēPjPē P·P°C†PsP±P°PjPē, C†
PiPsPsPrPēPSPsPePēC... PIPēPīP°PrPeP°C... PjPsP¶Pμ C‡PsP·PIPēPSC†C,PēC†C‡
C†PμC‡PsC,PsPSC-PSPsPIPēPNē C†PēPSPrC‡PsPj. PkPμPsP±C...C-PrPSPs P·
PsP±PμC‡PμP¶PSC-C†C,C‡ P·P°C†C,PsC†PsPIC†PIP°C,Pē PμC†C†PēC,P°P»PsPīC‡P°Pj
PsPrPSPsC†P°C†PSPs P· P»C-PeP°C‡C†C‡PePePēPjPē P·P°C†PsP±P°PjPē, C‰Ps C†PēPSC‡C,C‡

СГРµСГПсС,PsPSC-PSРµСГРµС-С±PSCr PrC-СГ. РкР° РNεPsPiPs СГПсР·PIPεC,PsPe PjPsP¶Pµ
PIPeP°P·CrPIP°C,Pe PePsPjP±C-PSР°C†C-С¶ C,Р°PePεC... СГРεPjPiC,PsPjC-PI С¶Pe
Р°P¶PεC,Р°C†C-С¶, C,СГРµPjPsСГ, PjC-PsPeP»PsPSCrCГ, PiC-PiPµСГC,РµСГРµPjC-С¶. P¶PeC%Ps
PIPePSPεPeP»Р° C,Р°PeP° СГРεC,СГР°C†C-С¶, C,Ps PŸP†P—P—PŸ C-
СГРµСГПсС,PsPSC-PSРµСГРµС-С±PSC- P»C-PeP°СГСГСГPeC- P·Р°СГРсР±Pe
PSРµPsP±C...C-PrPSPs C,РµСГРµPjC-PSРsPIPs PIC-PrPjC-PSРεC,Pe C- PiСГРεP·PSР°C±PeC,Pe
СГРεPjPiC,PsPjР°C,PeC±PSРµ P»C-PeCrPIP°PSРSC¶.

P—PIC-СГПсР±C-PNε. PhPrPSPsC±Р°СГРсРµ P·Р°СГРс,PsCГCrPIP°PSРSC¶ PŸP†P—P—PŸ C,Р°
СГПсСГР»PePSPSPεC... P·Р°СГРсР±C-PI, C%Ps PjC-СГC,С¶C,СГ P·PIC-СГПсР±C-PNε, PjPsP¶Pµ
PiСГРεP·PIPµCГC,Pe PrPs PiC-PrPIPεC%PµPSРSC¶ C±Р°СГC,PsC,Pe PiPsP±C-С±PSРεC...
СГРµP°PeC†C-PNε (PrPePI. СГПсР·PrC-P» B«P'P·Р°C"РjPsPrC-С¶ P· C-PSCεPεPjPe
P»C-PeP°СГСГСГPePεPjPe P·Р°СГРсР±P°PjPe C,Р° C-PSCεC- PIPεPrPe PIP·Р°C"РjPsPrC-PNεB»).

PŸPεPjPiC,PsPjPe PIC-PrPjC-PSРε. PŸPεPjPiC,PsPjPe PIC-PrPjC-PSРε PiСГРε
P·Р°PeC-PSC±PµPSРSC- P»C-PeCrPIP°PSРSC¶, PsCГРсР±P»PePIPs СГC-P·PePsPjCr, C"
PiPsCεPεСГРµPSРεPjPe. P'C-PrPsPjPs, C%Ps Cr PrPsCГР»C-PrP¶PµPSРSC¶C... PiСГРε
PiСГРεPiPePSPµPSРSC- P»C-PeCrPIP°PSРSC¶ PiPsP±C-С±PSC- РµC,,РµPeC,Pe
PIPePSPεPeP»Pe PiСГРεP±P»Pe·PSРs Cr 25 % PiP°C†C-С"PSC,C-PI, С¶PeC-
PiСГРεPNεPjР°P»Pe РµCГC†PeC,Р°P»PsPiСГР°Pj, C,Р° Cr 15 % PiP°C†C-С"PSC,C-PI, С¶PeC-
PiСГРεPNεPjР°P»Pe PiP»Р°C†PµP±Ps. P PeP·PePe СГРεPjPiC,PsPjC-PI PIC-PrPjC-PSРε PjPsP¶Pµ
P·Р°P»РµP¶P°C,Pe PIC-Pr PeC-P»СГPePsC... C,,Р°PeC,PsСГC-PI, Cr C,, C±. PIC-Pr
C,СГРεPIP°P»PsCГC,C- C,Р° PrPsP·Pe, CεPIPePrPePsCГC,C- P·PSРεP¶PµPSРSC¶ PrPsP·Pe.
P—P°PiP°PjPsСГПсC±PµPSРSC¶, СГРµPSCГРсСГPµPSРSC¶ (Cr C,, C±.
PiP°СГРµCГC,РµP·C—, PIC-PrC±CrC,C,С¶ CrPrР°СГCr СГC,СГCrPjPsPj), СГПсР·P»Р°PrPe
СГРсC (Cr C,, C±. P±PµP·CГРсPSРSC¶, С¶CГPeСГР°PIC- СГРсРsPIPePrC-PSРSC¶),
P·P±CrPrP¶PµPSРSC¶ Р°P±Ps C,СГРεPIPsP¶PSC-СГC,СГ, PSCrPrPsC,Р° C,Р°/Р°P±Ps
P±P»СГPIP°PSРSC¶, C,СГРµPjPsСГ, СГPiP»CrC,Р°PSC-СГC,СГ СГPIC-PrPsPjPsCГC,C-,
PiC-PrPIPεC%PµPSРµ PiPsC,PsPIPePrC-P»PµPSРSC¶, PiPsP»PsPIPSPePNε P±C-P»СГ,
PrC-Р°СГРµC¶, PiPsCГРεP»PµPSРµ СГРµСГC†PµP±PeC,C,С¶, РµPjPsC†C-PNεPSР°
PSРµCГC,Р°P±C-P»СГPSC-СГC,СГ, PrСГР°C,C-PIP»PePIC-СГC,СГ C- PiPsСГCrCεPµPSРSC¶
P·PsСГCr C" PSР°PNεC±Р°CГC,C-СεPεPjPe СГРµP°PeC†C-С¶PjPe. P—P°P·PIPeC±P°PNε C†C-
СГРεPjPiC,PsPjPe C" P»PµPiPePεPjPe Р°P±Ps СГРµСГРµPrPSC-PjPe P·Р° C,С¶P¶PeC-СГC,СГ,
Р°P»Pµ Cr PrPµC¶PePεC... PiP°C†C-С"PSC,C-PI PjPsP¶CГC,СГ P±CrC,Pe C,С¶P¶C±PePjPe.
P'PsPSPε P·Р°P·PIPeC±P°PNε PIPεPSPεPeP°СГC,СГ PiСГПсC,С¶PiPsPj PiPµСГCεPeC...
PeC-P»СГPePsC... PrC-P± PiC-СГР»С¶ PiСГРεPiPePSPµPSРSC¶ P»C-PeCrPIP°PSРSC¶, Р°P»Pµ
P±CrP»Pe PrCrP¶Pµ СГC-PrPeC-СГРSC- PiPsPIC-PrPsPjP»PµPSРSC¶ PiСГПс PiPsPrC-P±PSC-
СГРεPjPiC,PsPjPe Cr PiP°C†C-С"PSC,C-PI, С¶PeC- PIPεPiP°PrPePsPIPs PiСГПсPiCrCГC,PeP»Pe
PrPsP·Cr. P¶Pe PiСГР°PIPeP»Ps, СГРεPjPiC,PsPjPe PIC-PrPjC-PSРε PjPePSP°СГC,СГ
PiСГПсC,С¶PiPsPj 2 C,PeP¶PSC-PI, PsPrPSP°Pe Cr PrPµC¶PePεC... PiP°C†C-С"PSC,C-PI
PjPsP¶CГC,СГ C,СГРεPIP°C,Pe P±C-P»СГCεPµ (2-3 PjC-СГC¶C†C- Р°P±Ps P±C-P»СГCεPµ).
PŸР°PePεPj C±PePSPsPj, СГРµPePsPjPµPSРrCrC"С,СГCГC¶ PiPsCГC,СГPiPsPIPµ
PiСГРεPiPePSPµPSРSC¶ P»C-PeCrPIP°PSРSC¶ РµCГC†PeC,Р°P»PsPiСГР°PjPsPj CεP»С¶C...PsPj
P·PSРεP¶PµPSРSC¶ PrPsP·Pe PiСГПсC,С¶PiPsPj PeC-P»СГPePsC... C,PeP¶PSC-PI Р°P±Ps
PjC-СГC¶C†C-PI, P·Р°P»PµP¶PSPs PIC-Pr CГC,Р°PSCr PiP°C†C-С"PSC,Р° (PrPePI. СГПсР·PrC-P»
B«PŸPiPsCГC-P± P·Р°CГC,PsCГCrPIP°PSРSC¶ C,Р° PrPsP·PeB»).

PŸPµPeCГCzР°P»СГPSP° PrPeCГC,,CzPSPeC†C-С¶. PŸP†P—P—PŸ/P†P—P—PŸPк PjPsP¶CГC,СГ
СГPiСГРεC±PePSC¶C,Pe СГРεPjPiC,PsPjPe СГРµPeCГCrP°P»СГPSPsC—
PrPeCГC,,CГPSPeC†C-C— (PrPePI. СГПсР·PrC-P» B«PµPsP±C-С±PSC- СГРµP°PeC†C-C—B»).
P'CrP»Pe PiPsPIC-PrPsPjP»PµPSРSC¶ PiСГПс C,СГРεPIP°P»C- СГРµPeCГCrP°P»СГPSC-

PrPëCÍC„CíPSPeC†C—, PrPµ B CÍPëPjPiC,PsPjPë PiCĤPsPrPsPIP¶CíPIP°P»PëCÍCĬ
PiC—CÍP»CĬ PiCĤPëPiPëPSPµPSPSCĬ P»C—PeCíPIP°PSPSCĬ PŸP†P—P—PŸ / P†P—P—PŸPḱ.

P†C€PµPjC—C‡PSP° C...PIPsCĤPsP±P° CÍPµCĤC†CĬ. P PµPePsPjPµPSPPrCíC”C,CHCÍCĬ P·
PsP±PµCĤPµP¶PSC—CÍC,CH PiCĤPëP·PSP°C‡P°C,Pë P»C—PeP°CĤCÍCHPePëPNë
P·P°CÍC—P± PiP°C†C—C”PSC,P°Pj P· C—C€PµPjC—C‡PSPsCĤ C...PIPsCĤPsP±PsCĤ
CÍPµCĤC†CĬ C‡PµCĤPµP· PsP±PjPµP¶PµPSPëPNë PeP»C—PSC—C‡PSPëPNë PrPsCÍPIC—Pr.

PµPsPrPsPIP¶PµPSPSCĬ C—PSC,PµCĤPIP°P»Cḱ QT. P’PëCĬPIP»PµPSPs, C%Ps
PµCÍC†PëC,P°P»PsPiCĤP°Pj CÍPiCĤPëC‡PëPSCĬC” PrPsP·PsP·P°P»PµP¶PSPµ
PiPsPrPsPIP¶PµPSPSCĬ C—PSC,PµCĤPIP°P»Cí QPŸ. Pj
PiC—CÍP»CĬCĤPµC”CÍC,CĤP°C†C—PNëPSPëPNë PiPµCĤC—PsPr PiPsPIC—PrPsPjP»CĬP»PsCÍCĬ
PiCĤPs PIPëPiP°PrPePë PiPsPrPsPIP¶PµPSPSCĬ C—PSC,PµCĤPIP°P»Cí QT C,P°
C€P»CíPSPsC‡PePsPIPëC... P°CĤPëC,PjC—PNë, Cí C,PsPjCí C‡PëCÍP»C— PiPsP»C—PjPsCĤC,,PSPsC—
C€P»CíPSPsC‡PePsPIPsC— C,P°C...C—PeP°CĤPrC—C— (torsade de pointes), PiPµCĤPµPIP°P¶PSPs
Cí PiP°C†C—C”PSC,C—PI P¶C—PSPsC‡PsC— CÍC,P°C,C— P· PiC—PiPsPeP°P»C—C”PjC—C”CH P°P±Ps
CĤP°PSC—C€Pµ C—CÍPSCíCĤC‡PëPj PiPsPrPsPIP¶PµPSPSCĬPj C—PSC,PµCĤPIP°P»Cí QT, P°P±Ps
C—PSC€PëPjPë CÍPµCĤC†PµPIPëPjPë P·P°C...PIPsCĤCĤPIP°PSPSCĬPjPë (PrPëPI. CĤPsP·PrC—P»Pë
B«PµCĤPsC,PëPiPsPeP°P·P°PSPSCĬB», B«P’P·P°C”PjPsPrC—CĬ P· C—PSC€PëPjPë
P»C—PeP°CĤCÍCHPePëPjPë P·P°CÍPsP±P°PjPë C,P° C—PSC€C— PIPëPrPë PIP·P°C”PjPsPrC—PNëB»,
B«PµPsP±C—C‡PSC— CĤPµP°PeC†C—C—B», B«PµPµCĤPµPrPsP·CíPIP°PSPSCĬB» C,P°
B«PḱP°CĤPjP°PePsPrPëPSP°PjC—PeP°B»).

P PµPePsPjPµPSPPrCíC”C,CHCÍCĬ P· PsP±PµCĤPµP¶PSC—CÍC,CH P·P°CÍC,PsCÍPsPICíPIP°C,Pë
P»C—PeP°CĤCÍCHPePëPNë P·P°CÍC—P± PiP°C†C—C”PSC,P°Pj P·C— P·PSP°C‡PSPsCĤ
P±CĤP°PrPëPeP°CĤPrC—C”CH P°P±Ps PiP°C†C—C”PSC,P°Pj C—P· PSPµC%PsPrP°PIPsPs
PiPµCĤPµPSPµCÍPµPSPëPj PiPsCÍC,CĤPëPj C—PSC,,P°CĤPeC,PsPj PjC—PsPeP°CĤPrP° P°P±Ps
PSPµPePsPjPiPµPSCÍPsPIP°PSPsCĤ CÍPµCĤC†PµPIPsCĤ PSPµPrPsCÍC,P°C,PSC—CÍC,CH.

P·P»PµPeC,CĤPsP»C—C,PSC— CĤPsP·P»P°PrPë, C,P°PeC— CĬPe PiC—PiPsPeP°P»C—C”PjC—CĬ C,P°
PiC—PiPsPjP°PiPSC—C”PjC—CĬ, PiC—PrPIPëC%CíCĤC,CH CĤPëP·PëPe PIPëPSPëPePSPµPSPSCĬ
P·P»PsCĬPeC—CÍPSPëC... P°CĤPëC,PjC—PNë, C— C—C... CÍP»C—Pr PePsCĤPëPiCíPIP°C,Pë PrPs
PiPsC‡P°C,PeCí P»C—PeCíPIP°PSPSCĬ PµCÍC†PëC,P°P»PsPiCĤP°PjPsPj.

Pj PiP°C†C—C”PSC,C—PI C—P· P·P°C...PIPsCĤCĤPIP°PSPSCĬPjPë CÍPµCĤC†CĬ P·C—
CÍC,P°P±C—P»CHPSPëPj PiPµCĤPµP±C—PiPsPj PrPs PiPsC‡P°C,PeCí P»C—PeCíPIP°PSPSCĬ
CÍP»C—Pr PiPµCĤPµPiP»CĬPSCíC,Pë P·PḱP”.

PiPeC%Ps PiC—Pr C‡P°CÍ P»C—PeCíPIP°PSPSCĬ PµCÍC†PëC,P°P»PsPiCĤP°PjPsPj
PIPëPSPëPeP°CĤC,CH PsP·PSP°PePë CÍPµCĤC†PµPIPsC— P°CĤPëC,PjC—C—, CÍP»C—Pr
PiCĤPëPiPëPSPëC,Pë P»C—PeCíPIP°PSPSCĬ C— P·CĤPsP±PëC,Pë P·PḱP”.

P—P°PeCĤPëC,PsPeCḱC,PsPIP° PiP»P°CḱPePsPjP°. PŸP†P—P—PŸ, Cí C,PsPjCí C‡PëCÍP»C—
PµCÍC†PëC,P°P»PsPiCĤP°Pj, PjPsP¶CíC,CH PIPiP»PëPIP°C,Pë PSP° CĤPsP·PjC—CĤ P·C—PSPëC†C—,
C%Ps PiCĤPsCĬPIP»CĬC”C,CHCÍCĬ PjC—PrCĤC—P°P·PsPj. P—C— CÍPIPsPiPs P±PsPeCí,
CĤPsP·C€PëCĤPµPSPSCĬ P·C—PSPëC†C— PjPsP¶Pµ P·CíPjPsPIP»CĤPIP°C,Pë P·PICíP¶PµPSPSCĬ
PeCíC,P° PsPeP° C—, CĬPe PSP°CÍP»C—PrPsPe, PiC—PrPIPëC%CíPIP°C,Pë
PIPsCíC,CĤC—C€PSCĤPsPsC‡PSPëPNë C,PëCÍPe C,P° PiCĤPsPIPsPeCíPIP°C,Pë
P·P°PeCĤPëC,PsPeCíC,PsPICí PiP»P°CíPePsPjCí, PsCÍPsP±P»PëPIPs Cí CÍC...PëP»CHPSPëC...
PrPs C†CHPsPiPs PiP°C†C—C”PSC,C—PI. PŸPsPjCí PµCÍC†PëC,P°P»PsPiCĤP°Pj CÍP»C—Pr P·
PsP±PµCĤPµP¶PSC—CÍC,CH P·P°CÍC,PsCÍPsPICíPIP°C,Pë PiP°C†C—C”PSC,P°Pj C—P·
P·P°PeCĤPëC,PsPeCíC,PsPIPsCĤ PiP»P°CíPePsPjPsCĤ P°P±Ps PiP»P°CíPePsPjPsCĤ PI

P°PSP°PjPSPµP·C-.

P°PsPiPsPjC-P°PSC- CḡPµC±PsPIPëPSPë. P|PµPNë P»C-PeP°CḡCíCḡPePëPNë P·P°CíC-P±
PjC-CíC,PëC,Cḡ PjPµPSCëPµ 1 PjPjPsP»Cḡ PSP°C,CḡC-Cḡ (23 PjPi), C,PSP±C,PSP
PíCḡP°PeC,PëC±PSPs PIC-P»CḡPSPëPNë PIC-Pr PSP°C,CḡC-Cḡ.

P—P°CíC,PSCíC±PIP°PSPSCḡ C± PíPµCḡC-PsPr PIP°PiC-C,PSPSCíC,C- P°P±Ps
PiPsPrC±PIP°PSPSCḡ PiCḡC±PrPrCḡ.

P°P°PiC-C,PSC-CíC,Cḡ. PḡP»C-PSC-C±PSC- PrP°PSC- C%PsPrPs P·P°CíC,PSCíC±PIP°PSPSCḡ
PµCíC±PëC,P°P»PsPíCḡP°PjCí PíCḡPë P»C-PeCíPIP°PSPSC- PIP°PiC-C,PSPëC...
PsP±PjPµP°PµPSC-.

P°C-PrPsPjPs, C%Ps PrPsCíP»C-PrP°PµPSPSCḡ PSP° C,PIP°CḡPëPSP°C... PíPsPeP°P·P°P»Pë
CḡPµPíCḡPsPrCíPeC,PëPIPSCí C,PSPeCíPëC±PSC-CíC,Cḡ.

P»C-PeP°CḡCíCḡPePëPNë P·P°CíC-P± P·CíC±PëC,P°Pj^{B°} PḡCíC-PSPs
PíCḡPsC,PëPíPsPeP°P·P°PSPëPNë PIP°PiC-C,PSPëPj, P·P° PIPëPSCḡC,PePsPj PIPëPíP°PrPeC-PI,
PePsP»Pë PíC-CíP»Cḡ CḡPµC,PµP»CḡPSPsPiPs CḡPsP·PiP»CḡPrCí PICíC-C...
PSPµPrPsP»C-PeC-PI C- PíPµCḡPµPIP°Pi P±CíP»P° C±C-C,PePs PrPsPIPµPrPµPSP°
PSPµPsP±C...C-PrPSC-CíC,Cḡ PíCḡPëP·PSP°C±PµPSPSCḡ P»C-PeP°CḡCíCḡPePsPiPs
P·P°CíC±P±Cí.

P PµPePsPjPµPSPPrCíC°C,CḡCíCḡ CḡPµC,PµP»CḡPSPµ PsP±CíC,PµP°PµPSPSCḡ
PSPsPiPsPSP°CḡPsPrP°PµPSPëC..., PjP°C,PµCḡC- CḡPePëC... PíCḡPëPNëPjP°P»Pë
P»C-PeP°CḡCíCḡPePëPNë P·P°CíC-P± P·CíC±PëC,P°Pj^{B°} PḡCíC-PSPs PíCḡPsC,CḡPiPsPj
PIP°PiC-C,PSPSCíC,C-, PsCíC±P»PëPiPs PI P±P±P± C,CḡPëPjPµCíC,CḡC-.
PḡPµPsP±C...C-PrPSPs CíPSPëPeP°C,Pë CḡP°PiC,PSPiPsPiPs PíCḡPëPíPëPSPµPSPSCḡ
P·P°CíC,PSCíC±PIP°PSPSCḡ P»C-PeP°CḡCíCḡPePsPiPs P·P°CíC±P±Cí Cí PíPµCḡC-PsPr
PIP°PiC-C,PSPSCíC,C-.

Pj PSPsPiPsPSP°CḡPsPrP°PµPSPëC..., PjP°C,PµCḡC- CḡPePëC... PíCḡPëPNëPjP°P»Pë
PŸP±P—P—PŸ/PŸP±P—P—PŸPḡ PSP° PíC-P·PSC-C... CíC,P°PrC-CḡC... PIP°PiC-C,PSPSCíC,C-
PjPsP°P»PëPiPµ PIPëPSPëPePSPµPSPSCḡ C,P°PePëC... CíPëPjPiC,PsPjC-PI:
CḡPµCíPíC-CḡP°C,PsCḡPSPëPNë PrPëCíC,CḡPµCí, C±C-P°PSPsP·, P°PíPSPsPµ, CíCíPrPsPjPë,
PePsP»PëPIP°PSPSCḡ C,PµPjPiPµCḡP°C,CíCḡPë C,C-P»P°, PíCḡPsP±P»PµPjPë PíC-Pr C±P°Cí
PiPsPrCíPIP°PSPSCḡ, P±P»CḡPIP°PSPSCḡ, PiC-PíPsPiP»C-PePµPjC-Cḡ, PiC-PíPµCḡC,PsPSC-Cḡ
P°P±Ps PiC-PíPsC,PsPSC-Cḡ, PiC-PíPµCḡCḡPµC,,P»PµPeCíC-Cḡ, C,CḡPµPjPsCḡ,
PSPµCḡPiPsPiPµ P·P±CíPrP°PµPSPSCḡ, PrCḡP°C,C-PIP»PëPIC-CíC,Cḡ, P°PíP°C,C-Cḡ,
PíPsCíC,C-PNëPSPëPNë PíP»P°C±, CíPsPSP»PëPIC-CíC,Cḡ C- C,CḡCíPrPSPsC%C- P·C-
CíPSPsPj. PíC- CíPëPjPiC,PsPjPë PjPsP°CíC,Cḡ CḡPsP·PIPëPSCíC,PëCíCḡ PIPSP°CíP»C-PrPsPe
CḡPe CíPµCḡPsC,PsPSC-PSPµCḡPiC-C±PSPëC... PµC,,PµPeC,C-PI, C,P°Pe C- P±CíC,Pë
PsP·PSP°PeP°PjPë CíPëPSPrCḡPsPjCí PIC-PrPjC-PSPë. Pj P±C-P»CḡCëPsCíC,C-
PIPëPíP°PrPeC-PI PíCḡPsCḡPIPë CíCíPeP»P°PrPSPµPSCḡ PIPëPSPëPeP°CḡC,Cḡ PsPrCḡP°P·Cí
P°P±Ps C±PµCḡPµP· PSPµP·PSP°C±PSPëPNë C±P°Cí (< 24 PiPsPrPëPs) PíC-CíP»Cḡ
PíPsP»PsPiC-PI.

P·PiC-PrPµPjC-PsP»PsPiC-C±PSC- PrP°PSC- PíPsPeP°P·P°P»Pë, C%Ps
P·P°CíC,PSCíC±PIP°PSPSCḡ PŸP±P—P—PŸ PIP°PiC-C,PSPëPj PjPsP°Pµ PíC-PrPIPëC%CíPIP°C,Pë
CḡPëP·PëPe CíC,C-PNëPePsC— P»PµPiPµPSPµPiPsC— PiC-PíPµCḡC,PµPSP·C-C— Cí

PSPsPIPsPSP°CḡPsPrP¶PµPSPëC... (PrPs 5 PIPëPïP°PrPeC-PI PSP° 1000 PIP°PiC-C,PSPëC...). PJ P·P°PiP°P»CHbPSC-PNë PïPsPïCíP»C¼C†C-C— PIPëPSPëPeP°C” PIC-Pr 1 PrPs 2 PIPëPïP°PrPeC-PI PSP° 1000 PIP°PiC-C,PSPëC....

PµPµCḡC-PsPr PiPsPrC¿PIP°PSPSC¼ PiCḡC¿PrPrCḡ. PhCíPeC-P»CHbPePë
PµCíC†PëC,P°P»PsPïCḡP°Pj PïCḡPsPSPëPeP°C” Cí PiCḡCíPrPSPµ PjPsP»PsPePs,
PïCḡPsC,C¼PiPsPj P»C-PeCíPIP°PSPSC¼ PSPµ CḡPµPePsPjPµPSPPrCíC”C,CHbCíC¼
PiPsPrCíPIP°PSPSC¼ PiCḡCíPrPrCḡ.

P”P°PSC- CíPïPsCíC,PµCḡPµP¶PµPSCḡ PIPeP°P·CíCḡC,CH PSP° PïC-PrPIPëC%PµPSPëPNë
CḡPëP·PëPe (PjPµPSC€ PSC-P¶ Cí 2 CḡP°P·Pë) PïC-CíP»C¼PiPsP»PsPiPsPIPsC—
PeCḡPsPIPsC,PµC†C- PïC-CíP»C¼ PIPïP»PëPICí PŸP†P—P—PŸ/PŸP†P—P—PŸPḡ
PïCḡPsC,C¼PiPsPj PjC-CíC¼C†C¼ PïC-CíP»C¼ PSP°CḡPsPrP¶PµPSPSC¼ (PrPëPI.
CḡPsP·PrC-P»Pë B«PhCíPsP±P»PëPIPsCíC,C- P·P°CíC,PsCíCíPIP°PSPSC¼B» C,P°
B«PµPsP±C-C†PSC- CḡPµP°PeC†C-C—B»).

PαPµCḡC,PëP»CHbPSC-CíC,CH. P”PµC¼PeC- PŸP†P—P—PŸ PjPsP¶CíC,CH PIPïP»PëPIP°C,Pë
PSP° C¼PeC-CíC,CH CíPïPµCḡPjPë. PµPsPIC-PrPsPjP»PµPSPSC¼ PïCḡPs
P·P°CíC,PsCíCíPIP°PSPSC¼ PrPµC¼PePëC... PŸP†P—P—PŸ PïPsPeP°P·P°P»Pë, C%Ps PIPïP»PëPI
PSP° C¼PeC-CíC,CH CíPïPµCḡPjPë Cí P»CḡPrPëPSPë C” PsP±PsCḡPsC,PSPëPj. P’PïP»PëPI PSP°
C,,PµCḡC,PëP»CHbPSC-CíC,CH Cí P»CḡPrPëPSPë PrPsCíC- PSPµ
CíPïPsCíC,PµCḡC-PiP°PICíC¼.

P—PrP°C,PSC-CíC,CH PIPïP»PëPIP°C,Pë PSP° C€PIPëPrPeC-CíC,CH CḡPµP°PeC†C-C— PïCḡPë
PePµCḡC¿PIP°PSPSC- P°PIC,PsC,CḡP°PSCíPïPsCḡC,PsPj P°P±Ps C-PSC€PëPjPë
PjPµC...P°PSC-P·PjP°PjPë.

P—P°PiP°P»PsPj PµCíC†PëC,P°P»PsPïCḡP°Pj PSPµ PIPïP»PëPIP°C” PSP°
C-PSC,PµP»PµPeC,CíP°P»CHbPSC- C,,CíPSPeC†C-C— P°P±Ps PïCíPëC...PsPjPsC,PsCḡPSC-
CḡPµP°PeC†C-C—, P°P»Pµ CíP»C-Pr PICḡP°C...PsPICíPIP°C,Pë, C%Ps P±CíPrCHb-C¼PePëPNë
PïCíPëC...PsP°PeC,PëPIPSPëPNë P·P°CíC-P± PjPsP¶Pµ PïPsCḡCíC€CíPIP°C,Pë PSP°PIPëC†PePë
P°P±Ps P·PrP°C,PSC-CíC,CH CḡPsP·CíCíPrP»PëPIPsPiPs PjPëCíP»PµPSPSC¼. PŸP»C-Pr
PïPsPïPµCḡPµPrPëC,Pë PïP°C†C-C”PSC,C-PI PïCḡPs PïPsC,PµPSC†C-PNëPSPëPNë CḡPëP·PëPe
PIPïP»PëPICí PSP° PePµCḡCíPIP°PSPSC¼ P°PIC,PsC,CḡP°PSCíPïPsCḡC,PsPj P°P±Ps
C-PSC€PëPjPë PjPµC...P°PSC-P·PjP°PjPë.

PŸPïPsCíC-P± P·P°CíC,PsCíC¿PIP°PSPSC¼ C,P° PrPsP·Pë.

P’PµP·PïPµPeP° P·P°CíC,PsCíCíPIP°PSPSC¼ PrPsP· PïPsPSP°Pr 20 PjPi PSP° PrPsP±Cí PSPµ
P±CíP»P° PICíC,P°PSPsPIP»PµPSP°.

P·CíC†PëC,P°P»PsPïCḡP°Pj P·P°CíC,PsCíCíPIP°C,Pë PrPsCḡPsCíP»PëPj
PIPSCíC,CḡC-C€PSCḡPs 1 CḡP°P· PSP° PrPsP±Cí PSPµP·P°P»PµP¶PSPs PIC-Pr PïCḡPëPNëPsPjCí
C—P¶C-.

P’PµP»PëPePëPNë PrPµPïCḡPµCíPëPIPSPëPNë PµPïC-P·PsPr.

P—P°P·PIPëC†P°PNë CíP»C-Pr PïCḡPëP·PSP°C†P°C,Pë 10 PjPi 1 CḡP°P· PSP° PrPsP±Cí.
P—P°P»PµP¶PSPs PIC-Pr C-PSPPrPëPIC-PrCíP°P»CHbPSPsC— C†CíC,P»PëPIPsCíC,C-

РіР°С†С-С"РSC,Р° РrPsP±PsPICr РrPsP·Сr РjPsP¶PSP° Р·Р±С-Р»СНCЄРёC,Рё РrPs
РjР°РeС†РёРjР°Р»СНPSPsC— вґ" 20 РjPi.

РґPSC,РёРrРµPіCґPµCґРёPIPSPёPNё РµC,,РµРeC, Р·Р°Р·PIPёС†Р°PNё PSP°С†C,Р°С" С†РµCґPµP·
2-4 C,РёР¶P¶PSC-. РµC-С†Р»»Cґ Р·PSPёРePSPµPSPSCґ С†РёРjРіC,PsPjC-PI Р»C-РeС†РIP°PSPSCґ
PSPµPsP±C...C-РrPSPs РіCґPsРrPsPIP¶CґРIP°C,Рё РіCґPsC,СґPiPsPj 6 РjC-С†CґC†C-PI Р·
РjРµC,PsCґ Р·РjC-С†PSPµPSPSCґ РµC,,РµРeC,Сr.

РµР°PSC-С†PSC- CґPsP·Р»Р°РrРё Р· Р°РiPsCґР°C,,PsP±C-С"Сґ Р°Р±Ps Р±РµР· PSPµC—.

РµCґPsC,СґPiPsPj РіРµCґCєPsPiPs C,РёР¶P¶PSCґ CґРµРePsPjРµPSPrCґC"С,СНCґCґ
РіPsC±Р°C,РePsPIP° РrPsP·Р° 5 РjPi PSP° РrPsP±Сr, РіC-С†Р»»Cґ С†PsPiPs РrPsP·Сr РjPsP¶PSP°
Р·Р±С-Р»СНCЄРёC,Рё РrPs 10 РjPi PSP° РrPsP±Сr. Р"PsP·Р° РjPsP¶Рµ Р±СrC,Рё Сr
РіPsРrР°Р»СНCЄРёPsPjCґ Р·Р±С-Р»СНCЄРµPµPSP° РrPs РjР°РeС†РёРjР°Р»СНPSPsC— вґ" 20 РjPi
PSP° РrPsP±Сr вґ" Р·Р°Р»РµP¶PSPs PIC-Рr C-PSPrРёPIC-РrCґР°Р»СНPSPsC—
С†СrC,Р»РёPіPсCґC,С- РіР°С†С-С"РSC,Р°.

РґР°РeС†РёРjР°Р»СНPSPёPNё РµC,,РµРeC, РіCґРё Р»C-РeС†РIP°PSPSC- РіР°РSC-С†PSPёC...
CґPsP·Р»Р°РrC-PI РrPsCґCґPiР°C"С,СНCґCґ С†РµCґPµP· 3 РjC-С†CґC†C-. РґРµCґPjC-PS
Р»C-РeС†РIP°PSPSCґ С†C,Р°PSPsPIPёC,СН РrРµРeC-Р»СНРeР° РjC-С†CґC†C-PI С-
Р·Р°Р»РµP¶PёC,СН PIC-Рr C,СґP¶PёPsCґC,С- Р·Р°C...PIPсCґCґРIP°PSPSCґ.

РґРсC†C-Р°Р»СНPSC- C,CґРёРёPіPsP¶PSC- CґPsP·Р»Р°РrРё (CґPsC†C-Р°Р»СНPSP°
C,,PsP±C-Сґ).

Р—Р°Р·PIPёС†Р°PNё С†Р»»C-Рr РіCґРёР·PSP°С†Р°C,Рё 10 РjPi 1 CґР°Р· PSP° РrPsP±Сr.
РµPsР»РµPіCєРµPµPSPSCґ С†РёРjРіC,PsPjC-PI, СґPё РіCґР°РIPёР»Ps,
PIC-РrР±СrРIP°C"С,СНCґCґ С†РµCґPµP· 2-4 C,РёР¶P¶PSC- Р»C-РeС†РIP°PSPSCґ.
Р—Р°Р»РµP¶PSPs PIC-Рr C-PSPrРёPIC-РrCґР°Р»СНPSPsC— CґРµР°C†C-С—
РіР°С†C-С"РSC,Р° РrPsP·Сr Сr РіPsРrР°Р»СНCЄРёPsPjCґ РjPsP¶PSP° Р·РjРµPSCєРёC,Рё РrPs 5
РjPi/РrPsP±Сr Р°Р±Ps РіC-РrPIPёC%РёC,Рё РrPs РjР°РeС†РёРjР°Р»СНPSPsC— вґ" 20
РjPi/РrPsP±Сr.

РґCґРeC-Р»СНРeРё С†PsC†C-Р°Р»СНPSPёPNё C,CґРёРёPіPsP¶PSPёPNё CґPsP·Р»Р°Рr С"
Р·Р°C...PIPсCґCґРIP°PSPSCґРj C...CґPsPSC-С†PSPsPiPs РіРµCґPµP±C-РіCґ,
CґРµРePsPjРµPSPrCґC"С,СНCґCґ РіCґPsРrPsPIP¶PёC,Рё Р»C-РeС†РIP°PSPSCґ
РіCґPsC,СґPiPsPj 12 C,РёР¶P¶PSC-PI РrР»»Cґ Р·Р°РeCґC-РіР»РµPµPSPSCґ
РrPsCґCґPiPSCґC,PsPiPs РµC,,РµРeC,Сr.

Р"PsPiPsC,CґРёРIP°Р»Рµ Р»C-РeС†РIP°PSPSCґ РіCґPsC,СґPiPsPj 6 РjC-С†CґC†C-PI
РіCґРёР·PSP°С†Р°C,Рё Р· РjРµC,PsCґ Р·Р°РіPsP±C-РіР°PSPSCґ CґРµC†РёРrРёPICґ,
PICґР°C...PsPICґCґC†Рё C-PSPrРёPIC-РrCґР°Р»СНPSC- РіCґPsCґPiPё
Р·Р°C...PIPсCґCґРIP°PSPSCґ; CґРµPіCґР»CґCґPSPs PsC†C-PSCґCґC,СН
РµC,,РµРeC,РёPіPSC-С†C,СН Р»C-РeС†РIP°PSPSCґ.

РґРсC†C-Р°Р»СНPSPёPNё C,CґРёРёPіPsP¶PSPёPNё CґPsP·Р»Р°Рr вґ" C†Рµ С†C-С,РePs
PIPёР·PSP°С†РµPSPёPNё РrC-Р°РіPSPсCґC,РёC†PSPёPNё C,РµCґPjC-PS РrР»»Cґ
РіPsP·PSP°С†РµPSPSCґ С†РіРµC†PёC,,C-С†PSPsPiPs CґPsP·Р»Р°РrCґ, СґPёPNё PSPµ
С†Р»»C-Рr РіР»»CґC,Р°C,Рё Р· PSP°РrРjC-CґPSPсCґ С†PsCґPsPjвґ" СґP·Р»РёPIC-С†C,Сґ.
РґРµРrРёРёРeР°РjРµPSC,PsP·PSP° C,РµCґРіC-Сґ РіPsРeР°Р·Р°PSP° Р»РёCєРµРµ PI C,PsPjCґ
CґР°Р·C-, СґPёC%Ps CґPsP·Р»Р°Рr Р·PSP°С†PSPs Р·Р°РIP°P¶Р°C" РіCґPsC,,РµCґC-PNёPSC-PNё
РrC-СґP»СНPSPсCґC,С- C,Р° С†PsC†C-Р°Р»СНPSC-PNё Р°РeC,РёPіPSPсCґC,С-.

P—PSP°C†PμPSPSCЦ C,P°PePsPiPs P»C—PeCfPIP°PSPSCЦ PīPsCḡC—PIPSCЦPSPs P·
PePsPiPSC—C,PēPIPSPs—PīPsPIPμPrC—PSPePsPIPsCḡ C,PμCḡP°PīC—C"ḡ PSPμ
PsC†C—PSCḡPIP°P»PsCfCЦ. PḡPμPrPēPeP°PjPμPSC,PsP·PSP° C,PμCḡP°PīC—CЦ C" PsPrPSC—C"ḡ
P·C— CfPeP»P°PrPsPIPēC... P·P°PīP°P»CHbPSPsC— CfC,CḡP°C,PμPiC—C— P»C—PeCfPIP°PSPSCЦ
PīP°C†C—C"PSC,P°.

P"PμPSPμCḡP°P»C—P·PsPIP°PSC— C,CḡPēPIPSP¶PSC— CḡPsP·P»P°PrPē.

P—P°P·PIPēC†P°PNḡ CfP»C—Pr PīCḡPēP·PSP°C†P°C,Pē 10 PjPi 1 CḡP°P· PSP° PrPsP±Cf.
P—P°P»PμP¶PSPs PIC—Pr C—PSPrPēPIC—PrCfP°P»CHbPSPsC— C†CfC,P»PēIPsCfC,C— PrPsP·Cf
PjPsP¶PSP° P·P±C—P»CHbCēPēC,Pē PjP°PeCfPēPjCfPj PrPs 20 PjPi PSP° PrPsP±Cf.

P"PsPIPiPsC,CḡPēPIP°P»Pμ P»C—PeCfPIP°PSPSCЦ PīCḡPsC,CЦPiPsPj 6 PjC—CfCЦC†C—PI
PīCḡPēP·PSP°C†P°C,Pē P· PjPμC,PsCḡ P·P°PīPsP±C—PīP°PSPSCЦ CḡPμC†PēPrPēPICf,
PICḡP°C...PsPICfCḡC†Pē C—PSPrPēPIC—PrCfP°P»CHbPSC— PīCḡPsCЦPIPē
P·P°C...PIPsCḡCḡPIP°PSPSCЦ; CḡPμPiCfP»CЦCḡPSPs PsC†C—PSCḡCḡC,CH
PμC,,PμPeC,PēPIPSC—CfC,CH P»C—PeCfPIP°PSPSCЦ.

PḡP±CfPμCfPēPIPSPs—PePsPjPīCḡP»CHbCfPēPIPSC— CḡPsP·P»P°PrPē (PḡPḡP).

P—P°P·PIPēC†P°PNḡ CfP»C—Pr PīCḡPēP·PSP°C†P°C,Pē 10 PjPi 1 CḡP°P· PSP° PrPsP±Cf.
P—P°P»PμP¶PSPs PIC—Pr C—PSPrPēPIC—PrCfP°P»CHbPSPsC— C†CfC,P»PēIPsCfC,C— PrPsP·Cf
PjPsP¶PSP° P·P±C—P»CHbCēPēC,Pē PrPs 20 PjPi PSP° PrPsP±Cf. PḡPḡP вḡ " C...CḡPsPSC—C†PSPμ
P·P°C...PIPsCḡCḡPIP°PSPSCЦ, P»C—PeCfPIP°PSPSCЦ PjP°C" C,CḡPēPIP°C,Pē
PrPsCfC,P°C,PSC—PNḡ PīPμCḡC—PsPr PrP»CЦ P·P°P±PμP·PīPμC†PμPSPSCЦ PīPsPIPSPsPiPs
P·PSPēPePSPμPSPSCЦ CfPēPjPīC,PsPjC—PI, C%Ps PjPsP¶Pμ CfC,P°PSPsPIPēC,Pē PeC—P»CHbPeP°
PjC—CfCЦC†C—PI P°P±Ps PSP°PIC—C,CH P±C—P»CHbCēPμ. PḡPsCḡPēCfC,CH
P»C—PeCfPIP°PSPSCЦ C,P° PrPsP·Cf P»C—PeP°CḡCfCHbPePsPiPs P·P°CfPsP±Cf
PSPμPsP±C...C—PrPSPs PsC†C—PSCḡPIP°C,Pē C†PμCḡPμP· CḡPμPiCfP»CЦCḡPSC—
PīCḡPsPjC—P¶PePē C†P°CfCf.

PμP°C†C—C"PSC,Pē P»C—C,PSCHbPsPiPs PIC—PeCḡ (PIC—PePsPj PIC—Pr 65 CḡPsPeC—PI).

PμPsC†P°C,PePsPIP° PrPsP·P° CfC,P°PSPsPIPēC,CH 5 PjPi PSP° PrPsP±Cf. P—P°P»PμP¶PSPs
PIC—Pr C—PSPrPēPIC—PrCfP°P»CHbPSPsC— CḡPμP°PeC†C—C— PīP°C†C—C"PSC,P° PrPsP±PsPICf
PrPsP·Cf PjPsP¶PSP° P·P±C—P»CHbCēPēC,Pē PrPs 10 PjPi PSP° PrPsP±Cf.

P·C,,PμPeC,PēPIPSC—CfC,CH PμCfC†PēC,P°P»PsPīCḡP°PjCf PīCḡPē CfPsC†C—P°P»CHbPSPsPjCf
C,CḡPēIPsP¶PSPsPjCf CḡPsP·P»P°PrC— Cf PīP°C†C—C"PSC,C—PI P»C—C,PSCHbPsPiPs PIC—PeCf
PSPμ PsC†C—PSCḡPIP°P»Pē.

PμPμPrC—P°C,CḡPēC†PSP° PīPsPīCḡP»CЦC†C—CЦ.

P·CfC†PēC,P°P»PsPīCḡP°Pj PSPμ CfP»C—Pr P·P°CfC,PsCfPsPICfPIP°C,Pē PrP»CЦ
P»C—PeCfPIP°PSPSCЦ PrC—C,PμPNḡ C,P° PīC—PrP»C—C,PeC—PI PIC—PePsPj PrPs 18 CḡPsPeC—PI.

PḡPēCḡPePsPIP° PSPμPrPsCfC,P°C,PSC—CfC,CH.

Pj CḡP°P·C— PSP°CЦPIPSPsCfC,C— PSPēCḡPePsPIPsC— PSPμPrPsCfC,P°C,PSPsCfC,C—
P»PμPiPePsPiPs C,P° PīPsPjC—CḡPSPsPiPs CfC,CfPīPμPSCЦ PSPμPsP±C...C—PrPSPsCfC,C— Cf
PePsCḡPēPiCfPIP°PSPSC— PrPsP·Pē PSPμPjP°C". P— PsP±PμCḡPμP¶PSC—CfC,Cḡ
PSPμPsP±C...C—PrPSPs P·P°CfC,PsCfPsPICfPIP°C,Pē P»C—PeP°CḡCfCHbPePēPNḡ P·P°CfC—P±
PīP°C†C—C"PSC,P°Pj C—P· C,CЦP¶PePsCḡ PSPēCḡPePsPIPsCḡ PSPμPrPsCfC,P°C,PSC—CfC,Cḡ

(PeP»C-CḡPμPSCÍ PeCḡPμP°C,PëPSC-PSCÍ < 30 PjP»/C...PI).

P—PSPëP¶PμPSPSCÍ C„C¿PSPeC†C-C— PiPμC‡C-PSPePë.

PμP°C†C-C”PSC,P°Pj C-P· PiPsPjC-CḡPSPsCḡ C,P° CÍP»P°P±PePsCḡ PiPμC‡C-PSPePsPIPsCḡ
PSPμPrPsCÍC,P°C,PSC-CÍC,Cḡ CḡPμPePsPjPμPSPPrPsPIP°PSP° PiPsC‡P°C,PePsPIP° PrPsP·P°
PiCḡPSC,CÍPiPsPj PiPμCḡC€PëC... PrPIPsC... C,PëP¶PSC-PI P»C-PeCÍPIP°PSPSCÍ
CÍC,P°PSPsPIPëC,Cḡ 5 PjPi PSP° PrPsP±CÍ. P—P°P»PμP¶PSPs PIC-Pr
C-PSPrPëPIC-PrCÍP°P»CHPSPsC— CḡPμP°PeC†C-C— PiP°C†C-C”PSC,P° PrPsP·CÍ PjPsP¶PSP°
P·P±C-P»CHC€PëC,Pë PrPs 10 PjPi PSP° PrPsP±CÍ. PμCḡPë C,CÍP¶PeC-PNë
PiPμC‡C-PSPePsPIC-PNë PSPμPrPsCÍC,P°C,PSPsCÍC,C- PSPμPsP±C...C-PrPSC-
PsP±PμCḡPμP¶PSC-CÍC,Cḡ CÍ PiCḡPëP·PSP°C‡PμPSPSC- C- CḡPμC,PμP»CHPSPμ
C,PëC,CḡCÍPIP°PSPSCÍ PrPsP·Pë.

P—PSPëP¶PμPSP° P°PeC,PëPIPSC-CÍC,Cḡ C-P·PsC„PμCḡPjPμPSC,C¿ CYP2C19.

P”P»CÍ PiP°C†C-C”PSC,C-PI P·C- CÍP»P°P±PePsCḡ P°PeC,PëPIPSC-CÍC,Cḡ
C-P·PsC„PμCḡPjPμPSC,CÍ CYP2C19 CḡPμPePsPjPμPSPPrPsPIP°PSP° PiPsC‡P°C,PePsPIP° PrPsP·P°
PiCḡPSC,CÍPiPsPj PiPμCḡC€PëC... PrPIPsC... C,PëP¶PSC-PI P»C-PeCÍPIP°PSPSCÍ
CÍC,P°PSPsPIPëC,Cḡ 5 PjPi PSP° PrPsP±CÍ. P—P°P»PμP¶PSPs PIC-Pr
C-PSPrPëPIC-PrCÍP°P»CHPSPsC— CḡPμP°PeC†C-C— PiP°C†C-C”PSC,P° PrPsP·CÍ PjPsP¶PSP°
P·P±C-P»CHC€PëC,Pë PrPs 10 PjPi PSP° PrPsP±CÍ.

*PŸPëPjPiC,PsPjPë PIC-PrPjC-PSPë, CÍPeC- P·eḡ™ CÍPIP»CÍCḡC,CḡCÍCÍ PiCḡPë
PiCḡPëPiPëPSPμPSPSC- P»C-PeC¿PIP°PSPSCÍ.*

PŸP»C-Pr CÍPSPëPeP°C,Pë CḡC-P·PePsPiPs PiCḡPëPiPëPSPμPSPSCÍ P»C-PeCÍPIP°PSPSCÍ.
PμCḡPë PiCḡPëPiPëPSPμPSPSC- P»C-PeCÍPIP°PSPSCÍ P»C-PeP°CḡCÍCHPePëPj
P·P°CÍPsP±PsPj P·CÍC†PëC,P°Pj^{B®} PḡCÍC-PSPs PrPsP·CÍ CÍP»C-Pr P·PSPëP¶CÍPIP°C,Pë
PiPsCÍC,CÍPiPsPIPs PiCḡPSC,CÍPiPsPj 1Bḡ”2 C,PëP¶PSC-PI, C°PsP± CÍPSPëPePSCÍC,Pë
PjPsP¶P»PëPIPëC... CÍPëPjPiC,PsPjC-PI PIC-PrPjC-PSPë (PrPëPI. CḡPsP·PrC-P»Pë
B«PhCÍPsP±P»PëPIPsCÍC,C- P·P°CÍC,PsCÍCÍPIP°PSPSCÍB» C,P° B«PμPsP±C-C‡PSC-
CḡPμP°PeC†C-C—B»). PiPeC°Ps PiC-Pr C‡P°CÍ PiPsCÍC,CÍPiPsPIPsPiPs P·PjPμPSC€PμPSPSCÍ
PrPsP·Pë PiPëPSPëPeP°CḡC,Cḡ CÍPëPjPiC,PsPjPë PIC-PrPjC-PSPë, PjPsP¶PSP°
PIC-PrPSPsPIPëC,Pë PiCḡPëPNëPsPj CÍ PiPsPiPμCḡPμPrPSC-PNë PiCḡPëP·PSP°C‡PμPSC-PNë
PrPsP·C-. Pj PiPsPrP°P»CHC€PsPjCÍ P»C-PeP°Cḡ PjPsP¶Pμ PiCḡPsPrPsPIP¶PëC,Pë
P·PjPμPSC€CÍPIP°C,Pë PrPsP·CÍ, P°P»Pμ P±C-P»CHC€ PiPsCÍC,CÍPiPsPIPs.

P”C-C,Pë.

PḡPSC,PëPrPμPiCḡPμCÍP°PSC,Pë PSPμ CÍP»C-Pr P·P°CÍC,PsCÍPsPICÍPIP°C,Pë PrP»CÍ
P»C-PeCÍPIP°PSPSCÍ PrC-C,PμPNë C,P° PiC-PrP»C-C,PeC-PI (PIC-PePsPj PrPs 18 CḡPsPeC-PI).
PŸCÍC—C†PëPrP°P»CHPSP° PiPsPIPμPrC-PSPeP° (CÍCÍC—C†PëPrP°P»CHPSC- CÍPiCḡPsP±Pë
C,P° CÍCÍC—C†PëPrP°P»CHPSC- PrCÍPjPePë) C- PIPsCḡPsP¶C-CÍC,Cḡ (PiPμCḡPμPIP°P¶PSPs
P°PiCḡPμCÍC-CÍ, PsPiPsP·PëC†C-PNëPSP° PiPsPIPμPrC-PSPeP° C,P° PiPSC-PI) C‡P°CÍC,C-C€Pμ
CÍPiPsCÍC,PμCḡC-PiP°C”C,CHCÍCÍ PI C...PsPrC- PeP»C-PSC-C‡PSPëC...
PiPëPiCḡPsP±CÍPIP°PSCH CÍ PrC-C,PμPNë C,P° PiC-PrP»C-C,PeC-PI, CÍPeC-
PiCḡPëPNëPjP°CḡC,Cḡ P°PSC,PëPrPμPiCḡPμCÍP°PSC,Pë, PiPsCḡC-PIPSCÍPSPs P· C,PëPjPë,
CÍPeC- PiCḡPëPNëPjP°CḡC,Cḡ PiP»P°C†PμP±Ps. PiPeC°Ps P· PeP»C-PSC-C‡PSPëC...
PjC-CḡPeCÍPIP°PSCH CḡC-C€PμPSPSCÍ PiCḡPs PiCḡPëP·PSP°C‡PμPSPSCÍ

P°PSC, PëPrPµPīCḡPµCÍP°PSC, C-PI PICÍPµ-C, P°PePë PīCḡPëPNḡPSCḶC, Ps, PīPsC, CḡC-P±PSPs
P·P°P±PµP·PīPµC±PëC, Pë CḡPµC, PµP»CHBPSPµ CÍPīPsCÍC, PµCḡPµP¶PµPSPSCḶ C%PsPrPs
PīPsCḶPIPë CÍCÍC—C†PëPrP°P»CHBPSPëC... PSP°CÍC, CḡPsC—PI CÍ PīP°C†C-C''PSC, P° .B

PµPµCḡPµPrPsP·CáPIP°PSPSCḶ.

PŷPsPeCÍPëC±PSC-CÍC, CH. P''P°PSC- PīCḡPs PīPµCḡPµPrPsP·CÍPIP°PSPSCḶ
PµCÍC†PëC, P°P»PsPīCḡP°PjCÍ PsP±PjPµP¶PµPSC-. P' C-P»CHCëC-CÍC, CH PIPëPīP°PrPeC-PI
CÍPīCḡPëC±PëPSPµPSP° PsPrPSPsC±P°CÍPSPëPj PīPµCḡPµPrPsP·CÍPIP°PSPSCḶPj C-PSCëPëPjPë
P»C-PeP°CḡCÍCHPePëPjPë P·P°CÍPsP±P°PjPë. P' PsCÍPSPsPIPSPsPjCÍ
CÍPīPsCÍC, PµCḡC-PiP°P»PëCÍCḶ P»PµPiPeC- CÍPëPjPīC, PsPjPë P°P±Ps
P±PµP·CÍPëPjPīC, PsPjPSC-CÍC, CH PīPµCḡPµPrPsP·CÍPIP°PSPSCḶ. PµPsPIC-PrPsPjP»PµPSPSCḶ
PīCḡPs P»PµC, P°P»CHBPSC- PSP°CÍP»C-PrPePë PīPµCḡPµPrPsP·CÍPIP°PSPSCḶ
PµCÍC†PëC, P°P»PsPīCḡP°PjCÍ C'' PIPëPSCḶC, PePsPIPëPjPë, P±C-P»CHCëC-CÍC, CH P·PSPëC...
PIPeP»CHC±P°C'' PsPrPSPsC±P°CÍPSPµ PīPµCḡPµPrPsP·CÍPIP°PSPSCḶB C-PSCëPëPjPë
P»C-PeP°CḡCÍCHPePëPjPë P·P°CÍPsP±P°PjPë. PµCḡPëPNḡPsPj PrPsP· CÍ PjPµP¶P°C... 400-800
PjPi PµCÍC†PëC, P°P»PsPīCḡP°PjCÍ PSPµ CÍPīCḡPëC±PëPSCḶPI P±CÍPrCH-CḶPePëC...
C, CḶP¶PePëC... CÍPëPjPīC, PsPjC-PI.

PŷPëPjPīC, PsPjPë. PµPµCḡPµPrPsP·CÍPIP°PSPSCḶ PµCÍC†PëC, P°P»PsPīCḡP°PjCÍ
PīCḡPsCḶPIP»CḶC''C, CHCÍCḶ PīPsP»PsPIPSPëPj C±PëPSPsPj CÍPëPjPīC, PsPjP°PjPë P·P±PsPeCÍ
C†PµPSC, CḡP°P»CHBPSPsC— PSPµCḡPIPsPIPsC— CÍPëCÍC, PµPjPë (PIC-Pr
P·P°PīP°PjPsCḡPsC±PµPSPSCḶ, C, CḡPµPjPsCḡCÍ C, P° P°P¶PëC, P°C†C-C— PrPs
CḡC-PrPeC-CÍPSPëC... PIPëPīP°PrPeC-PI CÍPµCḡPsC, PsPSC-PSPsPIPsPīPs CÍPëPSPrCḡPsPjCÍ,
CÍCÍPrPsPj C- PePsPjPë), CëP»CÍPSPePsPIPs-PePëCëPePsPIPsC— CÍPëCÍC, PµPjPë
(PSCÍPrPsC, P°/P±P»CHPIP°PSPSCḶ), CÍPµCḡC†PµPIPs-CÍCÍPrPëPSPSPsC— CÍPëCÍC, PµPjPë
(P°CḡC, PµCḡC-P°P»CHBPSP° PiC-PīPsC, PµPSP·C-CḶ, C, P°C...C-PeP°CḡPrC-CḶ,
PīPsPrPsPIP¶PµPSPSCḶ C-PSC, PµCḡPIP°P»CÍ QT, P°CḡPëC, PjC-CḶ) C, P°
PīPsCḡCÍCëPµPSPSCḶPj PµP»PµPeC, CḡPsP»C-C, PSPsPīPs P±P°P»P°PSCÍCÍ
(PiC-PīPsPeP°P»C-C''PjC-CḶ, PiC-PīPsPSP°C, CḡC-C''PjC-CḶ).

P>C-PeCáPIP°PSPSCḶ. PŷPīPµC†PëC,, C-C±PSPsPīPs P°PSC, PëPrPsC, CÍ PSPµ C-CÍPSCÍC''.
PŷP»C-Pr PiC-PrC, CḡPëPjCÍPIP°C, Pë PSP°P»PµP¶PSPµ C,, CÍPSPeC†C-PsPSCÍPIP°PSPSCḶ
PrPëC...P°P»CHBPSPsC— CÍPëCÍC, PµPjPë, P·P°P±PµP·PīPµC±PëC, Pë P°PrPµPePIP°C, PSCÍ
PsPeCÍPëPīPµPSP°C†C-CH. PḡPsP¶P»PëPIPµ P·P°CÍC, PsCÍCÍPIP°PSPSCḶ
PīP°CÍC, CḡP°P»CHBPSPsPīPs P»P°PIP°P¶CÍ C, P° P°PeC, PëPIPsPIP°PSPsPīPs PICÍPiC-P»P»CḶ.
P PµPePsPjPµPSPrCÍC''C, CHCÍCḶ PjPsPSC-C, PsCḡPëPSPi CÍPµCḡC†PµPIPëC... C, P°
P¶PëC, C, C''PIPs PIP°P¶P»PëPIPëC... C,, CÍPSPeC†C-PNḡ CḡP°P·PsPj C-P·
CÍPëPjPīC, PsPjP°C, PëC±PSPëPj PīC-PrC, CḡPëPjCÍCHC±PëPj P»C-PeCÍPIP°PSPSCḶPj.

Pj CḡP°P·C- PīPµCḡPµPrPsP·CÍPIP°PSPSCḶ CḡPµPePsPjPµPSPrCÍC''C, CHCÍCḶ P·PḡP''-
PjPsPSC-C, PsCḡPëPSPi CÍ PīP°C†C-C''PSC, C-PI C-P·P·P°CÍC, C-PNḡPSPsCH CÍPµCḡC†PµPIPsCH
PSPµPrPsCÍC, P°C, PSC-CÍC, CH/P±CḡP°PrPëP°CḡPëC, PjC-C''CH, CÍ PīP°C†C-C''PSC, C-PI,
CḶPeC- PsPrPSPsC±P°CÍPSPs PīCḡPëPNḡPjP°CHC, CH P»C-PeP°CḡCÍCHPeC- P·P°CÍPsP±Pë,
CḶPeC- PīPsPrPsPIP¶CÍCHC, CH C-PSC, PµCḡPIP°P» QT, P°P±Ps CÍ PīP°C†C-C''PSC, C-PI C-P·
PīPsCḡCÍCëPµPSPSCḶPj PjPµC, P°P±PsP»C-P·PjCÍ, PSP°PīCḡPëPeP»P°Pr, PīCḡPë
PīPµC±C-PSPePsPIC-PNḡ PSPµPrPsCÍC, P°C, PSPsCÍC, C-.

PμPsP±C-C±PSC- CḡPμP°PeC†C-C—.

*PμPsP±C-C±PSC- CḡPμP°PeC†C-C— PSp°PNεC±P°C†C,C-CεPμ
C†PīPsC†C,PμCḡC-PiP°CḡC,CHC†CḡC PīCḡPsC,CḡPīPsPj PīPμCḡCεPsPīPs P°P±Ps
PrCḡC†PīPsPīPs C,PëPḡPSCḡ P»C-PeC†PIP°PSPSCḡ, C,P° P·P°P·PIPëC±P°PNε C—C...
C±P°C†C,PsC,P° C,P° C-PSC,PμPSC†PëPIPS-C†C,CH PīPsC†C,C†PīPsPIPs
P·PjPμPSCεC†CḡC,CHC†CḡC PīCḡPë PīPsPrP°P»CHCεPsPjC† P»C-PeC†PIP°PSPSC-.*

*PμPsP±C-C±PSC- CḡPμP°PeC†C-C—, C...P°CḡP°PeC,PμCḡPSC- PrP»Cḡ PIC†C-C...
P»C-PeP°CḡC†CHPePëC... P·P°C†PsP±C-PI PeP»P°C†C† PŸP†P—P—PŸ C,P°
PμC†C†PëC,P°P»PsPīCḡP°PjC†, CḡPeC- C†PīPsC†C,PμCḡC-PiP°P»PëC†CH C†
PīP»P°C†PμP±Ps-PePsPSC,CḡPsP»CHPsPIP°PSPëC... PrPsC†P»C-PrPḡPμPSPSCḡC... C,P°
PīCḡPë PjPμPrPëC±PSPsPjC† P·P°C†C,PsC†C†PIP°PSPSC-, P·P°P·PSP°C±PμPSC- P·P°
C†PëC†C,PμPjP°PjPë PsCḡPīP°PSC-PI C- C±P°C†C,PsC,PsCḡ: PrC†PḡPμ C±P°C†C,C- (≥
1/10), C±P°C†C,C- (≥ 1/100 PrPs < 1/10), PSPμC±P°C†C,C- (≥ 1/1000 PrPs < 1/100),
CḡC-PrPeC-C†PSC- (≥ 1/10000 PrPs < 1/1000), PrC†PḡPμ CḡC-PrPeC-C†PSC- (<
1/10000) P°P±Ps C±P°C†C,PsC,P° PSPμPIC-PrPsPjP° (PSPμPjPsPḡP»PëPIPs
PIC†C,P°PSPsPIPëC,Pë P·P° PSP°CḡPIPSPëPjPë PrP°PSPëPjPë).*

*P— P±PsPeCž PeCḡPsPIPsPSPsC†PSPsC— C,P° P»C-PjC„P°C,PëC±PSPsC— C†PëC†C,PμPjPë:
C±P°C†C,PsC,P° PSPμPIC-PrPsPjP° бḡ“ C,CḡPsPjP±PsC†PëC,PsPīPμPSC-Cḡ.*

*P— P±PsPeCž C-PjCžPSPSPsC— C†PëC†C,PμPjPë: CḡC-PrPeC-C†PSC- бḡ“
P°PSP°C„C-P»P°PeC,PëC±PSC- CḡPμP°PeC†C-C—.*

*P— P±PsPeCž PμPSPPrPsPeCḡPëPSPSPsC— C†PëC†C,PμPjPë: C±P°C†C,PsC,P° PSPμPIC-PrPsPjP°
бḡ“ PīPsCḡC†CεPμPSPSCḡ C†PμPeCḡPμC†C-C— P°PSC,PëPrC-C†CḡPμC,PëC±PSPsPīPs
PīPsCḡPjPsPSC†, PiC-PīPμCḡPīCḡPsP»P°PeC,PëPSPμPjC-Cḡ.*

*P— P±PsPeCž PjPμC,P°P±PsP»C-P·PjCž C,P° PsP±PjC-PSCž CḡPμC±PsPIPëPS: C±P°C†C,C- бḡ“
P·PSPëPḡPμPSPSCḡ P°P±Ps PīPsC†PëP»PμPSPSCḡ P°PīPμC,PëC,C†, P·P±C-P»CHCεPμPSPSCḡ
PjP°C†Pë C,C-P»P°; PSPμC±P°C†C,C- бḡ“ P·PjPμPSCεPμPSPSCḡ PjP°C†Pë C,C-P»P°;
C±P°C†C,PsC,P° PSPμPIC-PrPsPjP° бḡ“ PiC-PīPsPSP°C,CḡC-C”PjC-Cḡ, P°PSPsCḡPμPeC†C-Cḡ².*

*P— P±PsPeCž PīC†PëC...C-PePë: C±P°C†C,C- бḡ“ C,CḡPëPIPsPḡPSC-C†C,CH,
PSPμC†PīPsPeC-PNε, P°PSPsPjP°P»CHPSC- C†PSPë, P·PSPëPḡPμPSPSCḡ P»C-P±C-PrPs C†
C±PsP»PsPIC-PeC-PI C- PḡC-PSPsPe, P°PSPsCḡPīP°P·PjC-Cḡ C† PḡC-PSPsPe; PSPμC±P°C†C,C-
бḡ“ C†PeCḡPμPīPsC,C-PSPSCḡ P·C†P±P°PjPë, P·P±C†PrPḡPμPSPSCḡ,
PSPμCḡPIPsP·PSC-C†C,CH, PīP°PSC-C±PSC- PSP°PīP°PrPë, C†PīP»C†C,P°PSC-C†C,CH
C†PIC-PrPsPjPsC†C,C-; CḡC-PrPeC-C†PSC- бḡ“ P°PiCḡPμC†C-Cḡ,
PrPμPīPμCḡC†PsPSP°P»C-P·P°C†C-Cḡ, PiP°P»CḡC†PëPSP°C†C-C—; C±P°C†C,PsC,P°
PSPμPIC-PrPsPjP° бḡ“ PjP°PSC-Cḡ, C†C†C—C†PëPrP°P»CHPSC- PrC†PjPePë,
C†C†C—C†PëPrP°P»CHPSP° PīPsPIPμPrC-PSPeP°¹.*

*P— P±PsPeCž PSPμCḡPIPsPIPsC— C†PëC†C,PμPjPë: PrC†PḡPμ C±P°C†C,C- бḡ“
PīPsP»PsPIPSPëPNε P±C-P»CH; C±P°C†C,C- бḡ“ P±PμP·C†PsPSPSCḡ, C†PsPSP»PëPIC-C†C,CH,
P·P°PīP°PjPsCḡPsC±PμPSPSCḡ, PīP°CḡPμC†C,PμP·C-Cḡ, C,CḡPμPjPsCḡ; PSPμC±P°C†C,C- бḡ“
PīPsCḡC†CεPμPSPSCḡ C†PjP°PeC†, PīPsCḡC†CεPμPSPSCḡ C†PSC†,
PSPμPīCḡPëC,PsPjPSC-C†C,CH; CḡC-PrPeC-C†PSC- бḡ“ C†PμCḡPsC,PsPSC-PSPsPIPëPNε
C†PëPSPPrCḡPsPj; C±P°C†C,PsC,P° PSPμPIC-PrPsPjP° бḡ“ PrPëC†PeC-PSPμP·C-Cḡ,
CḡC†C...PsPIC- CḡPsP·P»P°PrPë, C†C†PrPsPjPë, PīC†PëC...PsPjPsC,PsCḡPSPëPNε*

$$^2 \text{P}\ddot{\text{v}}\text{P}^\circ\text{P}\text{eC}-\text{P}\ddot{\text{I}}\ddot{\text{P}}\ddot{\text{I}}\text{P}^\circ\text{P}\ddot{\text{r}}\text{P}\text{eP}\ddot{\text{e}}\text{PIC}-\text{P}\ddot{\text{r}}\text{P}\text{sP}\ddot{\text{i}}\text{C}-\text{P}\ddot{\text{r}}\text{P}\gg\text{C}\text{I}\text{I}\text{P}^\circ\text{P}^\circ\text{C}\acute{\text{I}}\text{P}\text{sP}\pm\text{C}-\text{P}\text{I}\text{C}\acute{\text{r}}\text{C}\acute{\text{r}}\text{C}\text{H}\text{P}\text{sP}\ddot{\text{i}}\text{P}\text{s}\text{P}\text{eP}\gg\text{P}^\circ\text{C}\acute{\text{I}}\text{C}\acute{\text{r}}$$

³ $\text{P}_{\mu}\text{C}\bar{\text{T}}\bar{\text{J}}\text{Ps } \text{C}, \text{P}^{\circ}\text{PeC}-\text{PI}\bar{\text{P}}\bar{\text{e}}\text{P}\bar{\text{i}}\text{P}^{\circ}\text{PrPeP}\bar{\text{e}} \text{ P}\bar{\text{i}}\text{PsPIC}-\text{PrPsPjP}\gg\text{C}\bar{\text{I}}\bar{\text{P}}\gg\text{P}\bar{\text{e}} \text{ PrP}\gg\text{C}\bar{\text{I}}$
 $\text{C}, \text{P}_{\mu}\text{C}\bar{\text{T}}\bar{\text{J}}\text{P}^{\circ}\text{P}\bar{\text{i}}\text{P}_{\mu}\text{PIC}, \text{P}\bar{\text{e}}\text{C}\bar{\text{I}}\text{PSPSPiPs } \text{PeP}\gg\text{P}^{\circ}\text{C}\bar{\text{I}}\text{C}\bar{\text{r}} \text{ P}\bar{\text{Y}}\text{P}\bar{\text{I}}\text{P}-\text{P}-\text{P}\bar{\text{Y}} \text{ P}^{\circ}\text{P}\pm\text{Ps } \text{P}\bar{\text{Y}}\text{P}\bar{\text{I}}\text{P}-\text{P}-\text{P}\bar{\text{Y}}\bar{\text{P}}\bar{\text{K}} \text{ (PrP}\bar{\text{e}}\text{PI.}$
 $\text{C}\bar{\text{T}}\bar{\text{J}}\text{PsP}\cdot\text{PrC}-\text{P}\gg\text{P}\bar{\text{e}} \text{ B}\langle\text{PhC}\bar{\text{I}}\bar{\text{r}}\text{PsP}\pm\text{P}\gg\text{P}\bar{\text{e}}\text{PIPSPC}\bar{\text{I}}\bar{\text{C}}, \text{C}-\text{P}\cdot\text{P}^{\circ}\text{C}\bar{\text{I}}\bar{\text{C}}, \text{PsC}\bar{\text{I}}\bar{\text{C}}\bar{\text{r}}\text{PIP}^{\circ}\text{PSPSC}\bar{\text{I}}\bar{\text{B}}\rangle,$
 $\text{B}\langle\text{P}-\text{P}^{\circ}\text{C}\bar{\text{I}}\bar{\text{C}}, \text{PsC}\bar{\text{I}}\bar{\text{C}}\bar{\text{r}}\text{PIP}^{\circ}\text{PSPSC}\bar{\text{I}} \text{ C}\bar{\text{r}} \text{ P}\bar{\text{i}}\text{P}_{\mu}\text{C}\bar{\text{T}}\bar{\text{J}}\text{C}-\text{PsPr } \text{PIP}^{\circ}\text{PiC}-\text{C}, \text{PSPSPC}\bar{\text{I}}\bar{\text{C}}, \text{C}-\text{P}^{\circ}\text{P}\pm\text{Ps}$
 $\text{PiPsPrC}\bar{\text{r}}\text{PIP}^{\circ}\text{PSPSC}\bar{\text{I}} \text{ PiC}\bar{\text{T}}\bar{\text{J}}\text{C}\bar{\text{r}}\text{PrPrC}\bar{\text{T}}\bar{\text{B}}\rangle).$

$PuPsPrPsPIP\Pmu PSPSC\downarrow C-PSC,P\mu C\overline{H}PIP^{\circ}P\rangle C\acute{z} QT,PJ$
 $PiC-C\acute{I}P\rangle C\downarrow C\overline{H}P\mu C''C\acute{I}C,C\overline{H}P^{\circ}C\downarrow C-PN\mathbb{E}PSPsPjC\acute{r} P\ddot{I}P\mu C\overline{H}C-PsPrC-P\ddot{I}PsPIC-PrPsPjP\rangle C\downarrow P\rangle P\ddot{e}$
 $PiC\overline{H}Ps PIP\ddot{e}P\ddot{I}P^{\circ}PrPeP\ddot{e} PiPsPrPsPIP\Pmu PSPSC\downarrow C-PSC,P\mu C\overline{H}PIP^{\circ}P\rangle C\acute{r} QT C,P^{\circ}$
 $C\acute{E}P\rangle C\acute{r}PSPsC\ddagger PePsPIPsC- P^{\circ}C\overline{H}P\ddot{e}C,PjC-C-, C\acute{r} C,PsPjC\acute{r} C\ddagger P\ddot{e}C\acute{I}P\rangle C-$
 $PiPsP\rangle C-PjPsC\overline{H}C,,PSPsC- C\acute{E}P\rangle C\acute{r}PSPsC\ddagger PePsPIPsC- C,P^{\circ}C...C-PeP^{\circ}C\overline{H}PrC-C- (torsade de$
pointes), $P\ddot{I}P\mu C\overline{H}P\mu PIP^{\circ}P\Pmu PSPs C\acute{r} P\Pmu C-PSPsPe, C\acute{r} P\ddot{I}P^{\circ}C\downarrow C-C''PSC,C-PI P\cdot$
 $PiC-P\ddot{I}PsPeP^{\circ}P\rangle C-C''PjC-C''C\overline{H} C,P^{\circ} C\acute{r} P\ddot{I}P^{\circ}C\downarrow C-C''PSC,C-PI P\cdot C\overline{H}P^{\circ}PSC-C\acute{E}P\mu$
 $C-C\acute{I}PSC\acute{r}C\overline{H}C\ddagger P\ddot{e}Pj P\ddot{I}PsPrPsPIP\Pmu PSP\ddot{e}Pj C-PSC,P\mu C\overline{H}PIP^{\circ}P\rangle PsPj QT P^{\circ}P\pm Ps C-PSC\acute{E}P\ddot{e}Pj$
 $P\cdot P^{\circ}C...PIPsC\overline{H}C\overline{H}PIP^{\circ}PSPSC\downarrow Pj C\acute{I}P\mu C\overline{H}C\downarrow C\downarrow (PrP\ddot{e}PI. C\overline{H}PsP\cdot PrC-P\rangle P\ddot{e}$
 $B\langle P\mu C\overline{H}PsC,P\ddot{e}P\ddot{I}PsPeP^{\circ}P\cdot P^{\circ}PSPSC\downarrow B\rangle, B\langle PhC\acute{I}PsP\pm P\rangle P\ddot{e}PIPsC\acute{I}C,C-$
 $P\cdot P^{\circ}C\acute{I}C,PsC\acute{I}C\acute{r}PIP^{\circ}PSPSC\downarrow B\rangle, B\langle P'P\cdot P^{\circ}C''PjPsPrC-C\downarrow P\cdot C-PSC\acute{E}P\ddot{e}PjP\ddot{e}$
 $P\rangle C-PeP^{\circ}C\overline{H}C\acute{I}C\overline{H}PeP\ddot{e}PjP\ddot{e} P\cdot P^{\circ}C\acute{I}PsP\pm P^{\circ}PjP\ddot{e} C,P^{\circ} C-PSC\acute{E}C- PIP\ddot{e}PrP\ddot{e} PIP\cdot P^{\circ}C''PjPsPrC-PN\mathbb{E}B\rangle,$
 $B\langle P\mu P\mu C\overline{H}P\mu PrPsP\cdot C\acute{r}PIP^{\circ}PSPSC\downarrow B\rangle C,P^{\circ} B\langle P\propto P^{\circ}C\overline{H}PjP^{\circ}PePsPrP\ddot{e}PSP^{\circ}PjC-PeP^{\circ}B\rangle).$

P_{лb}P»*P*^o*C**Г*–*C**Г**P**и**μ**C**†**P**ëC*„*C*–*C**†PSC*–*P**μC*„*P**μPeC*,*P**ë*. *P**и**PsPIC*–*PrPsPjP*»*C**и**P*»*P**ë*, *C*%*Ps*
*P**μ**PiC*–*PrP**μ**PjC*–*PsP*»*PsPiC*–*C**†PSC*–*PrPsCГP*»*C*–*PrP**¶P**μPSPSCи*, *PiP**μC**ГP**μPIP*^o*¶PSPs* *C**Г*
PiP^o*C**†C*–*C*”*PSC*,*C*–*PI* *PIC*–*PePsPj* *PIC*–*Pr* 50 *C**Г**PsPeC*–*PI*, *PiC**Г**PsPrP**μPjPsPSCГC*,*C**Г**C**Г**PiP*^o*P*»*P**ë*
PiC–*PrPiP**ëC*%*μPSP**P**μP*»*C**Г**P**ëP* *PiP**μC**ГP**μP*»*PsPjC*–*PI* *PeC*–*C**Г**C*,*PsPe* *PiC**ГP**ë*
P•*P*^o*C**Г**C*,*PsC**Г**C**Г**PiP*^o*PSPSC*–*P**ŸP**†P*–*P*–*P**Ÿ*, *PiPeP*»*C**Г**C**†P*^o*C**Г**C**†P**ë* *P**μC**Г**C**†P**ëC*,*P*^o*P*»*PsPiC**ГP*^o*Pj*,
C,*P*^o *C*,*C**Г**P**ëC**†P**ëPeP*»*C*–*C**†PSP**ëC*... *P*^o*PSC*,*P**ëPrP**μPiC**ГP**μC**ГP*^o*PSC*,*C*–*PI*. *P**н**P**μC*...*P*^o*PSC*–*P*•*Pj*
*C**†C**н**PsPiPs* *C**и**PiP**ëC*%*P*^o *PSP**μPIC*–*PrPsPjP**ëP**μP*.

PŸPëPjPìC,PsPjPë PIC-PrPjC-PSPë. P«CŸPëPìPëPSPµPSPSCŬ P»C-PeCíPIP°PSPSCŬ PŸP†P—P—PŸ
(PsCíPsP±P»PëPIPs CŸP°PìC,PsPIPµ) P·P°P·PIPëC†P°PNë PìCŸPëP·PIPsPrPëC,Ch PrPs
CíPëPjPìC,PsPjC-PI PIC-PrPjC-PSPë. P—P°PìP°PjPsCŸPsC†PµPSPSCŬ, CíPµPSCíPsCŸPSC-
CŸPsP·P»P°PrPë (Cí C,. C†. PìP°CŸPµCíC,PµP·C-Ŭ C,P° PIC-PrC†CíC,C,Ŭ CíPrP°CŸCí
CíC,CŸCíPjPsPj), CŸPsP·P»P°PrPë CíPSCí (Cí C,. C†. P±PµP·CíPsPSPSCŬ C,P°
ŬCíCíPeCŸP°PIC- CíPSPsPIPëPrC-PSPSCŬ), P·P±CíPrP¶PµPSPSCŬ P°P±Ps
C,CŸPëPIPsP¶PSC-CíC,Ch, PSCíPrPsC,P° C,P°/P°P±Ps P±P»CŸPIP°PSPSCŬ, C,CŸPµPjPsCŸ,
CíPìP»CíC,P°PSC-CíC,Ch CíPIC-PrPsPjPsCíC,C-, PìC-PrPIPëC%oPµPSPµ
PìPsC,PsPIPëPrC-P»PµPSPSCŬ, PìPsP»PsPIPSPëPNë P±C-P»Ch, PrC-P°CŸPµŬ,
PìPsCíPëP»PµPSPµ CíPµCŸC†PµP±PëC,C,Ŭ, PµPjPsC†C-PNëPSP°
PSPµCíC,P°P±C-P»ChPSC-CíC,Ch, PrCŸP°C,C-PIP»PëPIC-CíC,Ch C- PìPsCŸCíC€PµPSPSCŬ
P·PsCŸCí C" PSP°PNëC†P°CíC,C-C€PëPjPë CŸPµP°PeC†C-ŬPjPë. P—P°P·PIPëC†P°PNë C†C-
CíPëPjPìC,PsPjPë C" P»PµPìPePëPjPë P°P±Ps CíPµCŸPµPrPSC-PjPë P·P° C,ŬP¶PeC-CíC,Ch
C,P° PjPëPSCíC%oPëPjPë, PsPrPSP°Pe Cí PrPµŬPePëC... PìP°C†C-C"PSC,C-PI PjPsP¶CíC,Ch
P±CíC,Pë C,ŬP¶PePëPjPë C,P°/P°P±Ps C,CŸPëPIP°P»PëPjPë. PŸP°PePëPj C†PëPSPsPj,
CŸPµPePsPjPµPSPPrCíC" C,ChCíŬ PìPsCíC,CíPìPsPIPµ PìCŸPëPìPëPSPµPSPSCŬ
P»C-PeCíPIP°PSPSCŬ PµCíC†PëC,P°P»PsPìCŸP°PjPsPj C€P»ŬC...PsPj P·PSPëP¶PµPSPSCŬ
PrPsP·Pë (PrPëPI. CŸPsP·PrC-P»Pë B«PŸPìPsCíC-P± P·P°CíC,PsCíCíPIP°PSPSCŬ C,P°
PrPsP·PëB», B«PhCíPsP±P»PëPIPsCíC,C- P·P°CíC,PsCíCíPIP°PSPSCŬB»).

PиPсPIC-PrPsPjP»PиPSPSCи PiCтjPs PiPsP±C-C†PSC- CтjPиP°PeC†C-C— PiC-Cl'P»Cи
CтjPиC”Cf'C,CтjP°C†C-C— P»C-PeP°CтjCf'CHбPePsPiPs P·P°Cf'PsP±Cr PjP°C” PIP°P¶P»PëPIPи
P·PSP°C‡PиPSPSCи. P|Pи PrP°C” P·PjPsPiCr PiCтjPsPIPсPrPëC,Pë PjPsPSC-C,PсCтjPëPSPi
Cf'PiC-PIPIC-PrPSPсC€PиPSPSCи PePsCтjPëCf'C,CH/CтjPëP·PëPe PiCтjPë
P·P°Cf'C,PсCf'CrPIP°PSPSC- C†CHбPsPiPs P»C-PeP°CтjCf'CHбPePsPiPs P·P°Cf'PsP±Cr.
PнPиPrPëC‡PSPëPj C,P° C,,P°CтjPjP°C†PиPIC,PëC‡PSPëPj PiCтjP°C†C-PIPSPëPeP°Pj, P°
C,P°PePsP¶ PiP°C†C-C”PSC,P°Pj P°P±Ps C—C... P·P°PePsPSPSPëPj PiCтjPиPrCf'C,P°PIPSPëPeP°Pj
Cf'P»C-Pr PiPsPIC-PrPsPjP»CиC,Pë PiCтjPs CrCf'C- PIPëPiP°PrPePë PiC-PrPsP·CтjCHбPIP°PSPëC...
PiPsP±C-C‡PSPëC... CтjPиP°PeC†C-PNë C,P° PIC-PrCf'CrC,PSPCf'C,C-
PиC,,PиPeC,PëPIPSPCf'C,C- P»C-PeP°CтjCf'CHбPePsPiPs P·P°Cf'PsP±Cr C‡PиCтjPиP·
PhPIC,PsPjP°C,PëP·PsPIP°PSCr C-PSC,,PsCтjPjP°C†C-PNëPSCr Cf'PëCf'C,PиPjCr P·
C,,P°CтjPjP°PePsPSP°PiP»CиPrCr P·P° PiPsCf'PëP»P°PSPSCиPj: <https://aisf.dec.gov.ua>.

PŷPµCŦPjC-PS PiCŦPëPrP°C,PSPsCÍC,C-. 3 CŦPsPePë.

PJpJpPsPIPë P·P±PμCĤC-PiP°PSPSCĤ. P—P±PμCĤC-PiP°C, Pë Cr PSPμPrPsCĤC, CrPiPSPsPjCr PrP»CĤ PrC-C, PμPNë PjC-CĤC†C- PI PsCĤPëPiC-PSP°P»CHbPSC-PNë CrPiP°PePsPIC†C- PiCĤPë C, PμPjPiPμCĤP°C, CrCĤC- PSPμ PIPëC‰Pμ 25 B°PŸ.

PJPiP°PePsPIPeP°. P₁₁Ps 10 C, P°P±P»P₁₁C, PsPe Cr P±P»C-ClC, P₁₁C₇C-; P₁₁Ps 1 P°P±Ps 3, P°P±Ps 6 P±P»C-ClC, P₁₁C₇C-PI Cr PeP°C₇C, PsPSPSC-PN₂ P₁₁P°C±C†C-.

[illegible]
$$\mathbf{P'P\ddot{e}C\check{H}PsP\pm PSp\ddot{e}P\epsilon. P\check{y}P\check{h}P' B\ll P\check{x}P^{\circ}C\check{H}PjP^{\circ} P\check{Y}C, P^{\circ}C\check{H}C, B\gg, PjPeC\check{H}P^{\circ}C-PSP^{\circ}.$$

**Р_НС-СГ₁С†Р_μР·Р_{SP}°С...Р_SР_ГР_ГР_μР_{SP}SCII PIPëC_ГР_SР±Р_{SP}ëР_εР° С,Р° Р°Р_ГС_ГР_μСГ₁Р°
Р_ГС-СГ₁С†СII Р_ГС_ГР_SР_{IP}°Р_ГР_ГР_μР_{SP}SCII Р_NР_SР_ГР_S Р_ГС-СIIР»С_ГР_{SP}Р_SСГ₁С,С-.**

$$\text{P}|\text{P}e\text{C}\bar{\text{H}}\text{P}^{\circ}\text{C}-\text{PSP}^{\circ}, 03124, \text{P}]. \text{P}\bar{\text{L}}\text{P}\bar{\text{e}}\text{C}-\text{PI}, \text{P}\pm\text{C}\bar{\text{r}}\text{P}\gg\text{CH}\text{PIP}^{\circ}\text{C}\bar{\text{H}} \text{P}'\text{P}^{\circ}\text{C}|\text{P}\gg\text{P}^{\circ}\text{PIP}^{\circ} \text{P}''\text{P}^{\circ}\text{PIP}\mu\text{P}\gg\text{P}^{\circ}, 8.$$