**Table S1.** Least squares mean differences (95% CI) between tapentadol PR and oxycodone CR regarding change from baseline in average pain intensity using different imputation methods (intent-to-treat population).

|  |  |  |  |
| --- | --- | --- | --- |
|  | <65 years | ≥65 years | ≥75 years |
| At week 12 of maintenance  LOCF  BOCF  WOCF  PMI  mBOCF | -0.35 (-0.66, -0.04)  -0.67 (-0.97, -0.38)  -0.77 (-1.11, -0.43)  -0.1 (-0.3, 0.11)  -0.77 (-1.09, -0.46) | -0.36 (-0.84, 0.11)  -0.66 (-1.07, -0.25)  -0.78 (-1.26, -0.29)  -0.07 (-0.35, 0.21)  -0.82 (-1.28, -0.37) | -0.44 (-1.55, 0.66)  0.13 (-0.81, 1.07)  -0.22 (-1.32, 0.88)  0.19 (-0.5, 0.89)  -0.38 (-1.51, 0.76) |
| Entire maintenance period  LOCF  BOCF  WOCF  PMI  mBOCF | -0.28 (-0.57, 0.0)  -0.66 (-0.94, -0.38)  -0.78 (-1.1, -0.46)  -0.07 (-0.27, 0.13)  -0.69 (-0.97, -0.4) | -0.3 (-0.72, 0.13)  -0.68 (-1.07, -0.3)  -0.86 (-1.31, -0.41)  -0.1 (-0.38, 0.17)  -0.75 (-1.16, -0.34) | -0.23 (-1.2, 0.75)  0.06 (-0.77, 0.89)  -0.28 (-1.25, 0.69)  0.29 (-0.37, 0.96)  -0.16 (-1.15, 0.82) |

BOCF, baseline observation carried forward; CI, confidence interval; CR, controlled release; LOCF, last observation carried forward; mBOCF, modified BOCF; PMI, placebo mean imputation; PR, prolonged release; WOCF, worst observation carried forward. Negative values are in favor of tapentadol PR, positive values in favor of oxycodone CR.

**Table S2.** Mean EuroQoL-5D dimension scores at baseline and trial endpoint (LOCF, intent-to-treat population)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Mobility | | Self-care | | Usual activities | | Pain/discomfort | | Anxiety/depression | |
|  | Baseline | Endpoint | Baseline | Endpoint | Baseline | Endpoint | Baseline | Endpoint | Baseline | Endpoint |
| <65 years  Placebo (n=454)  Oxycodone CR (n=460)  Tapentadol PR (n=443) | 1.9 (0.3)  1.9 (0.3)a  1.9 (0.3) | 1.78 (0.4)  1.76 (0.4)a  1.67 (0.5) | 1.28 (0.5)b  1.26 (0.4)  1.28 (0.5) | 1.29 (0.5)  1.28 (0.5)  1.22 (0.4) | 1.85 (0.4)  1.85 (0.5)  1.85 (0.5) | 1.71 (0.5)  1.71 (0.5)  1.64 (0.5) | 2.38 (0.5)b  2.35 (0.5)  2.38 (0.5) | 2.1 (0.5)  2.1 (0.5)  1.99 (0.5) | 1.48 (0.6)  1.46 (0.6)  1.46 (0.6) | 1.37 (0.5)  1.42 (0.5)  1.36 (0.5) |
| ≥65 years  Placebo (n=220)  Oxycodone CR (n=213)  Tapentadol PR (n=220) | 1.95 (0.3)  1.92 (0.3)  1.94 (0.3) | 1.81 (0.4)  1.86 (0.4)  1.71 (0.5) | 1.35 (0.5)  1.29 (0.5)  1.34 (0.5) | 1.36 (0.5)  1.3 (0.5)  1.29 (0.5) | 1.84 (0.5)  1.84 (0.5)  1.81 (0.5) | 1.74 (0.5)  1.79 (0.5)  1.64 (0.5) | 2.36 (0.5)  2.38 (0.5)  2.31 (0.5) | 2.09 (0.5)  2.18 (0.5)  2.03 (0.5) | 1.47 (0.6)  1.43 (0.6)  1.43 (0.5) | 1.35 (0.5)  1.45 (0.6)  1.4 (0.5) |
| ≥75 years  Placebo (n=46)  Oxycodone CR (n=65)  Tapentadol PR (n=65) | 1.93 (0.3)  1.94 (0.3)  1.89 (0.3) | 1.83 (0.4)  1.86 (0.4)  1.71 (0.5) | 1.39 (0.5)  1.38 (0.5)  1.38 (0.5) | 1.37 (0.5)  1.32 (0.5)  1.29 (0.5) | 1.87 (0.5)  1.74 (0.5)  1.74 (0.5) | 1.7 (0.5)  1.72 (0.5)  1.6 (0.6) | 2.37 (0.5)  2.43 (0.5)  2.29 (0.5) | 2.15 (0.5)  2.12 (0.6  2.03 (0.5) | 1.46 (0.6)  1.4 (0.6)  1.4 (0.5) | 1.48 (0.6)  1.38 (0.6)  1.38 (0.5) |

a n=459, b n=453; data are mean (SD).

CR, controlled release; LOCF, last observation carried forward; PR, prolonged release; QoL, quality of life