**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)a1.9 (0.3) | 1.78 (0.4)1.76 (0.4)a1.67 (0.5) | 1.28 (0.5)b1.26 (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)b2.35 (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 (0.62.03 (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