Additional file 2 Results of validation of the ARMAX models of the six clusters

Distribution of Observed Pain vs. Estimated Pain Score (validation dataset cl. 1)

Cluster 1: validation based on 294 patients (1,470 weekly observations, 5 observations per patient) of Observational Study dataset patients not matched with RCTs (p-value observed vs. estimated pain score = 0.76; p-value observed vs. estimated pain responder level = 0.79) matched with RCTs (p-value observed vs. estimated pain responder level = 0.50)

Cluster 2: validation based on 407 patients (2,035 weekly observations, 5 observations per patient) of 1,061 Observational Study dataset patients matched with RCTs (p-value observed vs. estimated pain responder level = 0.30)

Cluster 3: validation based on 321 patients (1,605 weekly observations, 5 observations per patient) of 1,061 Observational Study dataset patients not matched with RCTs (p-value observed vs. estimated pain score = 0.29; p-value observed vs. estimated pain responder level = 0.26)

Cluster 4: validation based on 274 patients (1,370 weekly observations, 5 observations per patient) of 1,061 Observational Study dataset patients not matched with RCTs (p-value observed vs. predicted percent change in response = 0.52; p-value observed vs. estimated pain responder level = 0.26)

Cluster 5: validation based on 155 patients (775 weekly observations, 5 observations per patient) of 1,061 Observational Study dataset patients not matched with RCTs (p-value observed vs. estimated pain score = 0.71; p-value observed vs. estimated pain responder level = 0.83)

Cluster 6: validation based on 149 patients (745 weekly observations, 5 observations per patient) of 1,061 Observational Study dataset patients not matched with RCTs (p-value observed vs. estimated pain score = 0.66; p-value observed vs. estimated pain responder level = 0.73)