COPYRIGHT © BY THE JOURNAL OF BONE AND JOINT SURGERY, INCORPORATED FLETCHER ET AL. POSTOPERATIVE DEXAMETHASONE FOLLOWING POSTERIOR SPINAL FUSION FOR ADOLESCENT IDIOPATHIC SCOLIOSIS http://dx.doi.org/10.2106/JBJS.20.00259 Page 1

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A new variable, time (t), was created and represented the chronologic order of when the surgeries were performed. For each outcome undergoing multivariable analysis, a previously specified model of $\hat{y}_t = \beta_0 + \beta_1 \cdot ts + \beta_2 \cdot x_t + \beta_3 \cdot t_p + \beta \cdot Z_t$ was fit, where \hat{y}_t was the predicted response at time t, β_0 was the intercept, β_1 was the baseline change, β_2 was the level change at the time of postoperative steroid implementation, β_3 was the trend change after postoperative steroids were implemented, and β were the remaining coefficients in the regression model that require adjustment. The times t_s and t_p were case orders from the beginning of the study and after postoperative steroid implementation, respectively; x_t was a scalar representing postoperative steroid use; and, Z_t was a matrix of the remaining variables in the regression model. Since both postoperative MsEq (mg/kg) and LOS (hours) are right skewed, quantile regression was utilized with the tau set to 0.5 (median). Residual autocorrelation was determined by creating autocorrelation function (acf) graphs with the regression model residuals.