Figure 8. Definitions of Indicator Functions Utilizing the Items of the Movement Disorders Checklist (See Figure 7)

Define the indicator functions, Y_i and $\acute{Y}_i$, $1 < i < 23$, to correspond to the items $\{X_i, 1 <= i <= 23\}$ of the Movement Disorders Checklist (Figure 7) according to the following procedure:

Let

$$Y_i\,(X_i) = \begin{cases} 1 \text{ if } X_i = 1 \text{ on Figure 6 } (1 <= i <= 23) \\ 0 \text{ otherwise} \end{cases} \tag{1}$$

Similarly, let

$$\acute{Y}_i\,(X_i) = \begin{cases} 1 \text{ if } X_i = 0 \text{ on Figure 6 } (1 <= i <= 23) \\ 0 \text{ otherwise} \end{cases} \tag{2}$$

Then, define the additional indicator functions, Z_j, $1 <= j <= 4$, as follows:

$$Z_1\,(X_j) = \begin{cases} 1 \text{ if } X_{14} = 1 \text{ or } X_{17} = 1 \\ 0 \text{ otherwise} \end{cases} \tag{3}$$

$$Z_2\,(X_j) = \begin{cases} 1 \text{ if } X_7 = 1 \text{ or } X_{23} = 1 \\ 0 \text{ otherwise} \end{cases} \tag{4}$$

$$Z_3\,(X_j) = \begin{cases} 1 \text{ if } (X_1 = 1) \text{ or } (X_{16} = 1 \text{ and } X_{19} = 1) \text{ or } (X_{16} = 1 \text{ and } X_{22} = 1) \\ 0 \text{ otherwise} \end{cases} \tag{5}$$

$$Z_4\,(X_j) = \begin{cases} 1 \text{ if } X_{12} = 1 \text{ or } X_{13} = 1 \\ 0 \text{ otherwise} \end{cases} \tag{6}$$