



*Figure 5.* The Characterization Routine's analysis of curve shapes. Each subroutine of the overall Characterization Routine (see Figures 2 and 3) assesses the time series with which it is presented for a deep characteristic. One of the characteristics selected for analysis is the analysis of overall curve shape, as defined by beginning point, end point, and trend inbetween. Illustrated above are various categories of curve shapes that can be identified by the subroutine. Depending on the type of therapy being studied, the curve categories may take on specific meaning and can be sorted, for example, into “good” sessions and “bad” sessions. Shown above for illustration only, the red curves might be considered to represent better sessions than the blue curves. Depending on the nature of the input data, it may require smoothing or curve-fitting before sorting the resulting curve shapes.