Chemically induced phlebitis continues to be an adverse reaction from the intravenous administration of infusates. The primary method used for decreasing the incidence of chemically induced phlebitis is to dilute infusates to the point where they do not cause tissue damage. The exact amount of dilution required for preventing chemically induced phlebitis is not currently known. This article describes methods for accurately determining the onset of chemically induced phlebitis and for describing the final concentration levels of infusates. Use of the tools presented could help intravenous therapy specialists refine research and, as a result, predict and possibly avoid chemically induced phlebitis.