



**Fig. 13 (Supplementary):** Differences are shown between the situation in which only the first blood lead concentration is available (dotted lines) before the start of the chelation treatment and the situation in which blood lead concentrations have been measured several times (continuous line). In the ideal fit situation, the lead-succimer association constant was fitted individually. In the situation where only one sample is available, predictions were performed with the lowest and highest fitted value of the lead-succimer association constant, determined among the seven patients included in this study (respectively 6000 and 20.000).