Seveso, Italy - 17 Year Involvement University Department of Clinical Pathology - Desio-Milano, Italy

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The Seveso, Italy incident of July 10, 1976, has been the most studied case of a single release of material containing 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD). This explosion potentially exposed over 700 residents of what was designated as A Zone (the highest soil levels), almost 5,000 residents of B Zone, and over 31,000 residents of R Zone. Many of these people were followed medically from 1976-1982; some of the more potentially exposed population were followed until 1985. A comprehensive statistical survey of all A Zone children and later on all of the potentially exposed population falled to show any prevalence of laboratory pathological results for liver, kidney, bone marrow, lipids metabolism, and immune system function. Portions of serum from the medical examinations were stored frozen.

These specimens, especially those drawn in 1976, have been used to assess exposure to both chloracne and non-chloracne cases in A Zone; to B Zone residents at the time of the explosion; and to people who immigrated into B Zone after the explosion. Serial samples from selected individuals were analyzed for 2,3,7,8-TCDD in 1976 and years thereafter including 1992; the 1992 samples were also analyzed for many clinical chemistry markers. The results of the 2,3,7,8-TCDD measurements were plotted in order to estimate a half life of 2,3,7,8-TCDD in these individuals. The clinical laboratory results did not show any pathological values.