

Increment in a cumulative number of Japanese maintenance dialysis patients is approximating to a ceil.

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A report on a current status of maintenance dialysis therapy in Japan has been annually presented by the Japanese Society of Dialysis Therapy. The most fundamental and important issue is a shift in a cumulative number of dialysis patients, which has been usually expressed as a linear increment for last some 30 years. This report indicates that a shift in dialysis patient number is not adequately expressed as a linear increment, but is approaching to a ceil. Relation between a cumulative dialysis patient number (Y) and a year of investigation (X) is expressed in a manner of multiitem approximation formula (MIAF). When the first degree is applied in a MIAF (1st MIAF), an approximation value (R) is 0.9779 while, when the fifth degree (5th MIAF) is applied, it is as high as 0.9996. An analysis of the first, and the second degree differential of a 5th MIAF, which is postulated as a speed and an acceleration of a shift in a dialysis patient number, evidenced that a decrement in an acceleration firstly appeared in 1993, while a decrement in a speed appeared and a negative acceleration started in 1999. Such a ceiling tendency is assumed to be derived from consecutive shrinkage in application of the social medical insurances starting as “inclusion” in 1992.