

The improvement of diabetic foot care in Tuscany results in amputation reduction

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Background: In order to improve the organization of diabetic foot care in Tuscany and to standardize diagnostic and therapeutic protocols, in years 1999-2002 the implementation of international consensus of diabetic foot (ICDF) has been performed. In 2004 the Official Regional Health Authority established a new model of organization of diabetic foot care in Tuscany in three different levels, on the basis of the complexity of foot care service (from the simple surgical debridement to the revascularization and major surgery procedures). All diabetic foot units were able to perform screening, education and preventive programme, according to the international guidelines. One of the most important objectives was defined as a epidemiological surveillance based on clinical outcomes as a high percentage of population screened, reduction in hospital admissions and reduction in lower extremity amputations.

Methods: We studied a relatively stable population 3536392 inhabitants in 2000 and 3638211 in 2007 (with increase in the years minor of 3%). The data base for this study was extracted from the DRG of Health Regional System database (Tuscany) for diagnosis of diabetes, for foot lesions, procedures, number and duration of hospitalization and type of amputation. **Results:** Here we show the following preliminary data: in years 2000-2007 there were in Tuscany 4374 major lower extremity amputations, (LEA) of which 1232 were diabetes related (about 28%). Among individuals with diabetes LEA rates went from 4,2/100,000 inhabitants in the first year (148) to 3,3/100,000 inhabitants in the eighth year (120). ($p < 0,02$, Trend test). Over the same period non-diabetic related LEA decreased from 11,8 to 10,5/100,000 inhabitants. Moreover, hospitalization rate for diabetic foot was significantly reduced from 4,3 to 3,1/1000 patients. **Conclusions:** Our data demonstrate that the introduction of a better organized diabetes foot care is able to improve in outcomes one of the most feared diabetic complications.