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Impact of salt reduction on stroke mortality among Tunisian population

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Background: The burden of stroke and its risk factors is a major challenge to the Tunisian health system. Stroke caused 7.5% registered deaths in 2013. In this context, this paper aims to estimate stroke deaths in 20 years among Tunisian population aged 35-94 years old and to present the impact of salt reduction using a modeling approach.

Methods: Data were integrated and analyzed using the close cohort model based on Markov approach and transitions probabilities starting by the free population ischemic stroke. Monte Carlo Approach was used for sensitivity analysis by R Software Version R.3.2.0.

Results: The model forecast a huge increase in cumulative number of stroke mortality by 2025 among Tunisian population 66758 (min 59382, max 70108): Male mortality accounted 40781(min 39325, max 41865) represent 61.6% of the total deaths and it accounted 25977(min 20067, max 28243) among women. Thus results in about 2039 (min 1966, max 2094) annual deaths due to stroke among men and 1298 (min 1003, max 1413) among women. However if we reduce the consumption of salt by 30% from 14 gr/day to 9 gr/day, 12840 (min 11458, max 14560) prevented deaths could be achieved by 2025. Thus resulting about 20% avoided stroke deaths every year (642 (min 590, max 712)).

Conclusion: Our study highlighted that high salt intake reflected increases in stroke mortality. Salt reduction strategies among Tunisian population are urgently required.

Biography

Olfa Saidi has completed his diploma of Engineer in Statistics and data Analysis from National Institute of Statistics and Data Analysis Tunis in 2008. She got her Master on Public Health from Pierre and Mary Curie university-Paris in 2013. She has published interesting research studies on modeling of diabetes and cardiovascular diseases. She is student on PhD.

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