Aim: Tumors of the head and neck are a real public health problem with 14,638 new cases in France and 4,098 deaths in 2012. Therapeutic strategies are not yet subject to standard shared by all; where is a wide variability of therapeutic options allowing clinicians sometimes a greater therapeutic choices that scientific data permit. To improve the quality of care and to rationalize medical practices in a French region, a clinical practice guidelines (CPGs) has been set up in the Rhône-Alpes region in France in 2002.

Methods: With a controlled ‘before-after’ study we assessed the impact of the implementation of the CPGs by assessing the conformity of medical practices with the CPGs compared to an external matched control group from another French region without cancer network organization and shared CPGs at the regional level. The goals are also to identify predictive factors for adherence to CPGs and impact on progression-free survival (PFS) and overall survival (OS).

Results: Before CPGs implementation (1998) and after (2004 and 2006), patient with non metastatic head and neck cancer in first line treatment (226 and 692 patients in the experimental group, 72 and 130 patients in the control group, respectively) were identified. The median age was 60 years (range 22-93). The compliance rates were significantly higher in the experimental group before and after CPGs; 20.4% vs 39.5% (p = 0.000). Whereas, in the control group the differences was not significant between the 2 periods; 12.5% vs 20% (p = 0.17). In multivariate analysis, the type of structures [relative risk (RR) = 16.6, 95% CI = 0.63-0.85, p < 0.001] and the presence of multidisciplinary staff before initiation of treatment (RR = 4.7, 95% CI = 1.9, 1.9, p < 0.001) were identified as unique independent risk factors for conformity to CPGs. In the experimental group using multivariate analysis, the complete adherence to CPGs was a strong independent prognostic factor for OS.

Conclusions: The development and implementation strategy of clinical practice guidelines program for H&N cancer management results in significant changes in medical practice in our cancer network. These results would suggest that introducing guidelines with specific implementation strategy might also increase the compliance rate with the guideline and was associated with a significantly better survival in the field of H&N cancers.

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