

## Valutazione dell'appropriatezza d'uso della FDG-PET in oncologia: uno studio di audit regionale

Chiara Monagheddu, Claudia Galassi, Eva Pagano, Alberto Biggi, Gianni Bisi, Eugenio Inglese, Ettore Pelosi, Maurizio Mancini, Francesca Giunta, Luciana Ballini, Oscar Bertetto, Giovannino Ciccone

### **Abstract**

**Introduction:** The FDG-PET is a relatively new and expensive technology with specific indications for diagnosis, staging, re-staging and treatment planning in oncology. In Piedmont, the use of this technology has expanded rapidly since 2002, year of the opening of the first regional centre.

**Objectives:** To describe the pattern of use of PET in the Piedmont region and to assess the level of appropriateness using evidence-based recommendations as standard of care.

**Methods:** A prospective audit was conducted on a random sample of patients identified in the 4 regional centres in the Piedmont region (Northern Italy), from December 2006 to October 2007. The following data were collected: diagnosis, the specific clinical question motivating the request, physician's specialization, the report of the examination and the subsequent decisions supported by the results.

**Results:** Overall 432 patients were included in the study. Fifty-six per cent of the exams were performed for indications considered appropriate (47.2%) or potentially useful (9.3%), with great variability between centres (range: 48.2%-63.8%). For 5.8% the assessment was based on a limited evidence from the literature (less than two independent good quality studies). Only 1.2% of the exams were performed for indications considered as inappropriate.

A higher frequency of appropriateness was found for specific neoplasms, such as colon-rectal cancer (84.6%) lung neoplasm (76.5%) and HD-NHD lymphomas (72%).

Multivariate analysis showed some variabilities between centres in the appropriateness level.

**Conclusions:** These results on the appropriateness of PET usage may contribute to a better planning of services at regional level, for updating clinical criteria and to identify new topics for further research.