

## **DRUG-UTILIZATION PATTERN OF NON SMALL CELL LUNG CANCER PATIENTS ANALYZED BY GENDER AT UNIVERSITY HOSPITAL OF SIENA, ITALY (UHS)**

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Lung cancer is the third most commonly occurring cancer in females. NSCLC represents about 85% of all cases of lung cancer. Recently, treatment guidelines for NSCLC have changed due to the introduction of new drugs for patients with advanced stage disease.

The aim of the study was to analyze the treatment patterns of patients diagnosed with NSCLC in advanced stage between 2009 and 2017 at the University Hospital of Siena (UHS), focusing on gender difference in drug utilization. Patients with NSCLC diagnosis were identified by records in the pathology registry (PR) of UHS between January 2009 and June 2017. PR data of NSCLC patients were anonymized and linked to the administrative healthcare database of Tuscany region. Advanced stage patients were defined as those without surgical intervention (NO-SUR patients). A total of 2003 NSCLC patients were identified. There was a statistically significant upward trend ( $p=0.0177$ ) in the incidence in women, rising from 25% in 2009 to 38% in 2017. The average age of patients was 69 years and 45.3% were aged between 50 and 69 years. NO-SUR were the 57.1% of the study cohort ( $n=1144$ ). This cohort was divided in elderly, aged  $\geq 70$  years ( $n=587$ ), and young patients, aged 18-69 years ( $n=557$ ). In the 6 months following the index date, the percentage of subjects who received both immunotherapy and target therapy was higher among young patients, 5.9% vs 1.7% and 13.1% vs 11.1%, respectively and increased from 2.8% to 28.2% in young patients ( $p<0.001$ ) and from 1.4% to 6.9% in elderly patients between 2015 and 2017. In this cohort the proportion of women increased. Data will be presented on the pattern of drug utilization and outcome in relation to gender. Real world data on the pattern of drug utilization provide important information for clinician and health provider both in terms of appropriateness and economic sustainability of cares.

Acknowledgment: Andrea Spini was partially supported by Agenzia Regionale di Sanità della Toscana, Firenze