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## CONFERENCE ABSTRACT

### **Health and economic outcomes for founding medicine on a comparable value: experiences from the VOICE Community in breast and lung cancer.**

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Quality of care initiatives have risen among cancer healthcare providers, and policymakers attempt to systematically measure and improve the quality of cancer care. Cancer is a leading cause of morbidity and mortality in Europe. Although cancer survival rates have considerably increased in recent years, its significant impact on the quality of life and healthcare utilization remains. Value-based healthcare (VBHC) proposes that health systems need to be managed in terms of outcomes that matter to patients, connecting health and economic outcomes to determine the value of the healthcare. Benchmarking across healthcare centres might provide support decision-making on what matter most to patients, focusing on lessons learned from best performers, and moving toward a high-value healthcare delivery system. This paper aims to provide a benchmarking of healthcare and economic outcomes across ten hospitals in order to generate better healthcare practices.

The VOICE community is a European hospital cluster addressing the VBHC in breast and lung cancer from theory into practice. The community collects Clinical-Related (CROs), Patient-Related (PROs), Care Process-related (CPRs) and Economic-related (EROs). Two cohorts of patients diagnosed with breast (n=690; 6-hospitals) and lung cancer (n=318; 4-hospitals) in 2019 were recruited with a 6-month follow-up according to ICHOM's reference guides. For each cohort, a clinical pathway was designed according to clinical practice guidelines; PROs, CROs and CPRs variables were collected according to the ICHOM standard sets; and a standard set of economic variables was designed using a bottom-up approach. Finally, patient archetypes were identified using clustering techniques and clinical expert opinion, and the definition of a set of benchmarking indicators followed a consensus DELPHI methodology. Benchmarking was performed using descriptive analyses and regression models controlling for patient archetypes, clinical and socio-demographic variables. A benchmarking digital solution was provided to clinicians and healthcare managers.

Breast (43) and lung (46) indicators were defined and classified into health outcome (CROs and PROs), CPRs, ERs and case-mix indicators. In breast cancer, significant differences across centres were found in PROs, CPRs and EROs indicators. Quality of life, body image and social and economic function showed significant differences. Time from diagnosis to treatment and the appropriate rate of sentinel node testing showed major differences. The proportion of patients with major outpatient

surgery and the use of new chemotherapy molecules were significantly different. In lung cancer, no significant differences were found across centres in PROs indicators but they were in CPRs. Time from diagnosis to treatment or complications of systemic therapies showed high variability. The EROs indicators' analysis for lung cancer is undergoing.

To the best of our knowledge, this is the first VBHC international coordinated experience across healthcare centres, providing healthcare and economic outcomes to be used with a routine benchmarking intention. This research might be of use for healthcare centres in moving toward VBHC next steps, such as the identification of room to improve their healthcare delivery processes and to modify their healthcare model accordingly. The challenge lies in being able to estimate the VBHC by combining health and economic outcomes using the value equation.