

Health expenditure in initial diagnostic and treatment approach to non-metastatic breast cancer in Iran

Shahpar Haghighat: Epidemiology Department, School of Public Health, Shahid Beheshti University of Medical Sciences (SBMU), Tehran, Iran & Breast Cancer Research Center (BCRC), ACECR, Tehran, Iran

Mohammad Esmail Akbari: Cancer Research Center (CRC), SBMU

Shahram Ghaffari: Iranian Social Security Organization, Tehran, Iran

Parvin Yavari: Department of Health and Community Medicine, SBMU, Tehran, Iran

Corresponding Author: Parvin Yavari, parvinyavari@yahoo.com & p.yavarigr@sbbmu.ac.ir

Background: Breast Cancer as the most common women cancer in Iran can effect on physical, psychological, social and economical aspects of life in patients. This study presents the direct diagnostic and treatment costs of non-metastatic breast cancer in different stages of disease.

Methods: In this secondary study, many databases of diagnostic, staging, treatment modalities in breast cancer in Iran were used. Approved international and national guidelines about diagnostic and therapeutic approach to non- metastatic breast cancer were reviewed. Some survey, expert panels and expert opinions were used to finalize the guideline. Iran Health Ministry approved costs for 2012- 2013 were used for this purpose. Data were analysed in three steps: Diagnostic process of breast cancer diagnosis, disease staging, treatment modalities required for each stage of disease.

Results: Results showed that total cost of breast cancer treatment in stage I was 4092 (3683-5737) US\$ and in stages II and III, 8484 (7635-10740) and 9223 (8300-11667) US\$ respectively. Total cost of diagnostic and treatment modalities for non-metastatic stages in 10,000 Iranian breast cancer women was estimated 70, 871, 923US\$. The largest cost component in stages II and III was chemotherapy (56%, 57%) and in stage I, Radiation therapy (34%).

Conclusion: Small proportion of stage I costs compared to other stages and large proportion of chemotherapy cost in stages II and III of disease, insist on importance of establishing early diagnosis strategies for breast cancer in health care system. This study may be helpful for implementing more effective resource allocation in health system, promoting diagnosis and treatment services and providing higher quality of life for breast cancer patients.

Keywords: Health expenditure, Breast Cancer, Cost, Diagnosis, Treatment, Iran.