P25. HEALTH TECHNOLOGY ASSESSMENTS IN HSCT–CENTRE OF BONE MARROW TRANSPLANTATION TIMIŞOARA

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Introduction: Hematopoietic stem cell transplantation (HSCT) is a complex and demanding therapeutic procedure, with numerous early and late risks , but life-saving, whit very large costs. Profitability and feasibility is dependent of many factors (type of transplant, age of patients, pathology, evolutive risk factors, but, also ,the size of the center, the annual number of transplants, etc.) and the economic potential of the country.

Objectives:

-The primary objectives were assessing results and determining the financial resources of HSCT

-Secondary end points refers to assessment of cost-effectiveness (average Cost-Effectiveness Ratio)(ACER) , report of incremental cost-effectiveness (incremental cost-Effectiveness Ratio)(ICER) and to minimizing the cost analysis

-Tertiary objectives: predicting the impact of hypothetical medical and organizational measures of cost-effectiveness of HSCT

Methods: The study was conducted on a sample of 51 consecutive patients transplanted throughout 2013, with the following distribution by age: 7 patients under 18 years, 4 patients between 18-26 years and 40 patients over 26 years.45 patients received autologous HSCT, 4patients –matched related HSCT HLA compatible,1 patient matched unrelated allogeneic HSCT HLA compatible and 1 patient matched unrelated HSCT HLA partially compatible .The pathology was: 24 patients with multiple myeloma, 11 patients with Hodgkin lymphoma, 9 patients non-Hodgkin lymphoma, 1 patient with nephroblastoma , 4 patients with AML, 1 patient with ALL and 1 patient with MDS.

Parameters considered targeted were health status, time to grafting, overall survival (OS), disease-free survival (DFS), event free survival(EFS), indication and complications like death and its causes over a period of one year under hospital conditions. Additional quality of life was evaluated (subjectively) byEQ-5D questionnaire and visual analogue scale(VAS).

Financial accounting data extracted from administrative service took into account the costs of medication

Results: Overall survival at 15 months was 80%, death occurred in17.6% of cases. The most important complications in the early stage were: mucositis , infection and graft versus host reaction, and in the late stage bacterial infections and viral reactivation.

The results of the economic analysis: the average cost of HSCT(autologous +allogeneic)and expenses for the first year, in Timisoara was 31.908$, and in the world36000-88000$ for autologous HSCT and 96000-204000$ for allogeneic HSCT . ICER was 11.020,35 $ and ACER was 10.730,86 $, entirely justifying the opportunity of TCSH in Romania.

Conclusions

1.TCSH was indicated in extremely severe pathological situations, malignant disease, life-threatening (in 88.88% with unfavorable predictive factors) proved to be a therapeutic method to saving 82.4% of patients.

2. Despite in the extremely protective measures (average care, nutrition therapy, complex antibiotic prophylaxis with bacterial, fungal and viral agents ,prophylactic replacement with Immunoglobuline) evolution was charged with numerous(62.74% of patients in the early stage and 29,41% in the late stage) complications, especially infections (64.7% of them) fortunately controlled in the majority of cases (87.9%). Deaths (17.6%) were determined in55.56% of cases by a chemoresistant malignant pathology, relapse and disease progression or second malignancy.