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ECONOMIC IMPACT OF WEIGHT-BASED DOSING VERSUS FIXED DOSING OF PEMBROLIZUMAB IN A SPECIALTY HOSPITAL

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BACKGROUND AND IMPORTANCE

Pembrolizumab is a drug that has revolutionized oncology in recent years, becoming a standard therapy for multiple types of neoplasms and treatment lines, both in early-stage and advanced disease. The amount of pembrolizumab used in hospitals is steadily increasing, and achieving cost savings in dosing while maintaining treatment efficacy could significantly contribute to the sustainability of the healthcare system.

AIM AND OBJECTIVES

To assess the economic impact, measured in direct costs, of using reduced-dose pembrolizumab for the treatment of various cancer types.

MATERIAL AND METHODS

This descriptive observational retrospective study included 192 patients with various types of neoplasms. Pembrolizumab was administered at 2 mg/kg rather than the fixed 200 mg dose specified in the drug's Summary of Product Characteristics. All patients who received reduced doses of pembrolizumab were included, regardless of the number of treatment cycles completed. The mean patient weight was 66 kg.

RESULTS

Weight-based dosing of pembrolizumab during the study period resulted in a total direct cost saving of €515,862. The per-patient savings ranged from €18 to €14,567. By cancer type, the patients treated with pembrolizumab 2 mg/kg included: 16 with head and neck cancer, 9 with cervical cancer, 6 with colorectal cancer, 2 with endometrial cancer, 2 with gastric cancer, 29 with breast cancer, 17 with melanoma, 100 with non-small cell lung cancer, and 11 with renal cancer. Reduced-dose pembrolizumab was prescribed in 82% (192 out of 234) of total prescriptions.

CONCLUSION AND RELEVANCE

Administering pembrolizumab at 2 mg/kg represents a highly efficient strategy, generating significant cost savings. This approach is particularly relevant for the sustainability of the healthcare system, especially in oncology, where innovation and treatment costs continue to rise.