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Introdução e Objetivo

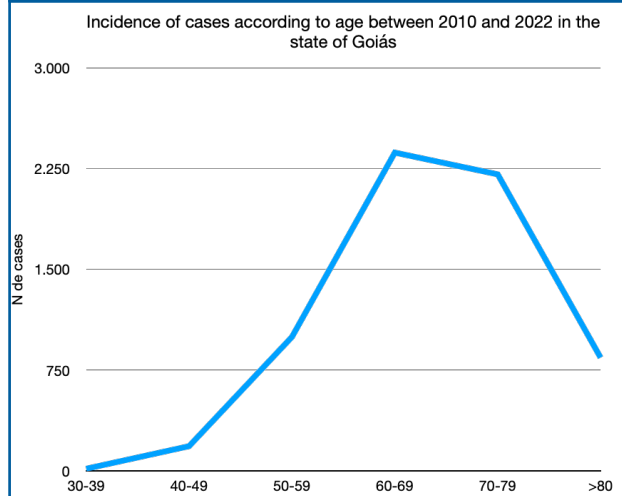
The estimated number of new cases of prostate cancer in Brazil, for the three-year period from 2023 to 2025, is 71.730, corresponding to an estimated risk of 67,86 new cases per 100.000 men. Goiás is the most populous state with the highest gross domestic product in the Brazilian Midwest, being a hub and reference for other states in the region. The estimate for the state in 2023 is 2500 cases, 3.5% of cases in the country. Our study aims to describe the number of cases of prostate cancer in Brazil and in Goiás, the costs related to treatment and hospitalization, the average length of stay and the mortality rate in the state.

Método

This study was an ecological study, descriptive, analytic and retrospective study analysing the data reported between January 2010 and December 2022.

Statistical analysis was conducted using (SPSS), version 13.0 (SPSS for Mac OS X, SPSS, Inc., Chicago, Illinois). Groups were compared regarding the differences using Pearson's χ^2 test and statistical significance was determined at $p < 0.05$.

Figuras



Average cost comparison of Brazil versus Goiás

| | Brazil | Goiás | p value |
|-----------------------|-------------------|-----------------|-------------|
| N cases | 93.759 | 2.343 | |
| Costs | \$ 406.522.551,46 | \$ 9.381.020,55 | |
| Costs per case | \$ 4.335,82 | \$ 4.003,85 | $p < 0.001$ |

Resultados

The incidence of prostate cancer in Brazil in the period 364.8 per 1 million inhabitants, of which 68% of patients were between 55 and 74 years old. The incidence of prostate cancer in Goiás during the period was 6.6 per 100.000 inhabitants, with 65% of patients aged between 55 and 74 years.

In the period between 2010 and 2022, a total number of 93.759 surgeries performed for prostate cancer in Brazil were registered, according to the terms "Radical prostatectomy in oncology", "Prostatovesiculectomy and Prostatovesiculectomy in oncology". Thus, the average was 8.523 surgeries per year. In the same period, 2.343 of these surgeries were performed in Goiás, with an average of 213 surgeries per year.

Considering the economic cost of treating prostate cancer, it was found that the cost of hospital procedures in Goiás in the period was \$ 9.381.020,55. In the same period, the amount spent in Brazil for hospital procedures for prostate cancer was \$ 406.522.551,46. The cost per surgery to the public health system in Goiás was significantly lower than Brazilian average, with \$ 4.003,85 in state and \$ 4.335,82 in the country ($p < 0.001$). The mean length of hospital stay after prostate cancer surgery in Goiás was significantly shorter than in Brazil, 3.6 and 5.4 days, respectively ($p < 0.001$).

Conclusão

The average cost per surgery in Goiás is significantly lower than the national average, as well as the average length of hospital stay. This may translate into a profile of patients with a less indolent disease, generating lower costs and hospitalization days during treatment. Understanding the profile of patients, as well as hospital services, is essential to improve cost-effectiveness and not generate overtreatment.

Referências

1. Porcacchia AS, Pires GN, Ortiz V, Andersen ML, Tufik S. Prostate cancer mortality and costs of prostate surgical procedures in the Brazilian public health system. *Int Braz J Urol*. 2022 May-Jun;48(3):583-590. 2. Instituto Nacional de Câncer (Brasil). Estimativa 2023 : incidência de câncer no Brasil / Instituto Nacional de Câncer. Rio de Janeiro : INCA, 2022. 3. Mourão TC, Curado MP, de Oliveira RAR, Santana TBM, Favaretto RL, Guimarães GC. Epidemiology of Urological Cancers in Brazil: Trends in Mortality Rates Over More Than Two Decades. *J Epidemiol Glob Health*. 2022 Sep;12(3):239-247. doi: 10.1007/s44197-022-00042-8. Epub 2022 May 31. 4. Yoshida LF, Silva AG, Saúde AD, Zola FE, Oliveira, FNG, et al. Cost of treating castration-resistant prostate cancer by applying the Delphi method to the Brazilian Private Healthcare System. *J Bras Econ Saúde* 2019;11(2):142-52