Application of Observational Medical Outcomes Partnership-Common Data Model (OMOP-CDM) Database in Nursing Health Problems with Prostate Cancer-a Pilot Study

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Abstract: Prostate cancer is the most commonly diagnosed male cancer in the U.S. The prevalence is around 1 in 8. The etiology of prostate cancer is still unknown, but some predisposing factors, such as age, black race, family history, and obesity, may increase the risk of the disease. In 2020, a total of 7,178 Taiwanese people were nearly diagnosed with prostate cancer, accounting for 5.88% of all cancer cases, and the incidence rate ranked fifth among men. In that year, the total number of deaths from prostate cancer was 1,730, accounting for 3.45% of all cancer deaths, and the death rate ranked 6th among men, accounting for 94.34% of the cases of male reproductive organs. Looking for domestic and foreign literature on the use of OMOP (Observational Medical Outcomes Partnership, hereinafter referred to as OMOP) database analysis, there are currently nearly a hundred literature published related to nursing-related health problems and nursing measures built in the OMOP general data model database of medical institutions are extremely rare. The OMOP common data model construction analysis platform is a system developed by the FDA in 2007, using a common data model (common data model, CDM) to analyze and monitor healthcare data. It is important to build up relevant nursing information from the OMOP- CDM database to assist our daily practice. Therefore, we choose prostate cancer patients who are our popular care objects and use the OMOP- CDM database to explore the common associated health problems. With the assistance of OMOP-CDM database analysis, we can expect early diagnosis and prevention of prostate cancer patients' comorbidities to improve patient care.

Keywords: OMOP, nursing diagnosis, health problem, prostate cancer

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