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## Five Years Facts of Bladder Cancer at West Java's Top Referral Hospital, in Indonesia

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### Abstract

**Background:** Bladder cancer is the second most common genitourinary cancer and its incidence is rising 15% annually in Indonesia. Smoking is the leading risk factor of bladder cancer and two thirds of men in Indonesia smokes. This study was conducted to describe the characteristics of bladder cancer based on sex, age and histopathology type in West Java's Top Referral Hospital, Indonesia.

**Methods:** This study was a descriptive study conducted during the period of September to November 2015 using 372 histopathological medical records of patients who had primary and secondary bladder cancer at the Pathology Department, Dr. Hasan Sadikin General Hospital Bandung from January 2010 to December 2014. Data were collected using total sampling method based on the characteristics of age, sex, histopathology type, and staging of bladder cancer.

**Results:** Out of the 372 cases, 298 cases were male and 38 cases were female with a male to female ratio of 7.8:1. The age group with the highest incidence was the 50–59 years old group. Infiltrating urothelial carcinoma was the most common histopathology type (71.1%) in primary cancers, 66.1% of cases was muscle invasive while 33.9% was non muscle invasive. Staging pT1 had the most number of cases. The most common site of origin for secondary neoplasm was cervix with adenocarcinoma as the most common histopathology type.

**Conclusions:** Bladder cancer is more common in male than female and peaks at the sixth decade of life. Infiltrating urothelial carcinoma is the most common histopathology type. [AMJ.2017;4(1):94–9]

**Keywords:** Age, bladder cancer, histopathology type, sex

### Introduction

Bladder cancer is the second most common genitourinary cancer and accounts for 3.2% of the total cancer cases worldwide.<sup>1</sup> Based on Globocan Data 2012, the incidence of bladder cancer patients in Indonesia for both sexes is 3.2 per 100,000.<sup>1</sup> This incidence is increasing 15% per annum in the last decade in Indonesia.<sup>2</sup> The mortality rate is 1.7 per 100,000 cases.<sup>1</sup> Bladder cancer is three times more common in male than female.<sup>3</sup> However, in women, the disease has a higher mortality and presents in a more advanced stage.<sup>4</sup> The peak of bladder cancer is in the sixth or seventh decade.<sup>3</sup> The most common histopathology type is Infiltrating Urothelial Carcinoma.<sup>2</sup>

The most important risk factor for

bladder cancer is smoking.<sup>5</sup> Two thirds of the Indonesian population of male smokes and West Java has the second highest number of smokers in Indonesia.<sup>6</sup> Occupation exposure for example azo dyes used in textile industries is also associated with elevated bladder cancer risk. West Java accounts for the highest clothing production in Indonesia. The increasing number of smokers and exposure to occupational carcinogens along with the increasing geriatric population in West Java will increase the incidence of bladder cancer in West Java, in addition increasing the burden of cancer in Indonesia.

Based on the factors above and the differences in genetic composition in Indonesians, the objective of the study was to describe the characteristics of patients

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