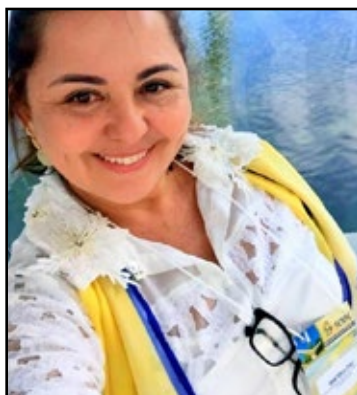




Federal Fluminense University

AURORA DE AFONSO COSTA  
NURSING SCHOOL



## Clinical-epidemiological profile and clean intermittent catheterization in people with spinal cord injury

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### ABSTRACT

**Aim:** characterize the socio-demographic and clinical-epidemiological profile of people with spinal cord injury (SCI). **Method:** this is a cross-sectional, quantitative study involving 80 individuals with SCI. **Results:** the sample was mostly composed by young individuals, male, with chest injury, victims of traffic accidents. A correlation was found between SCI at lumbar level with firearm accidents, between thoracic injuries and traffic accidents and between cervical lesions and shallow-water diving injuries. Tetraplegia had a greater influence as a risk factor for all complications related to paraplegia, but presented a protective factor for pain syndromes. The reuse of the catheter presented a risk factor for urinary infection, obstruction and bleeding. The use of a lubricated catheter was a protective factor for all the complications studied. **Conclusion:** the knowledge of the intervening factors to the spinal cord injuries, as well as the identification of the risks of complications, corroborates to a more qualified care.

**Descriptors:** Spinal Cord Injuries; Epidemiologic Measurements; Catheterization; Nursing.

## INTRODUCTION

Spinal cord injury can be considered a worldwide epidemic, occupying the second position in Brazil in relation to the number of traumatic causes. Although epidemiological data on the subject are scarce due to the lack of notification by the agencies that serve this clientele, it is estimated that, depending on the region, there are 20 to 50 new cases of trauma per one million inhabitants per year<sup>(1)</sup>. The spinal cord injury is considered one of the most overwhelming occurrences today, with enormous physical, psychic and social repercussions<sup>(2)</sup>.

Approximately 500,000 people suffer from spinal cord injury each year in the world<sup>(3)</sup>. This represents little less than 0.1% of the population with a known disability<sup>(4)</sup>. In view of the pathophysiological context that involves these patients, attention is paid to urinary complications, with emphasis on neurological dysfunction of the lower urinary tract, in which the use of clean intermittent catheterization (CIC).

## OBJECTIVES

To characterize the sociodemographic and clinical-epidemiological profile of people with spinal cord injury (SCI); to analyze the correlations between the clinical characteristics, level of the traumatic injury and the complications in the person with SCI; to identify the prevalence of people with SCI who undergo CIC; to evaluate the risk of complications related to CIC use in people with SCI.

## MÉTODO

Observational, cross-sectional, quantitative approach study performed with individuals with SCI. The sample included 80 participants. Data collection took place between May and September 2014, through a semi-structured form. The data were analyzed through the use of descriptive and inferential statistics and correspondence analysis to verify multivariate association between the causes of trauma, lesion level and trauma sequel; and the chi-square test and relative risk in order to verify association and its magnitude between the types of sequel and the complications of the SCI. The research was approved by the Ethics Committee of the University Hospital Lauro Wanderley (HULW), CAAE No. 58639216.1.0000.5183, in compliance with the requirements of Resolution 466/12 of the National Health Council<sup>(5)</sup>.

## RESULTS

The sample was characterized by young individuals, male, single and/or married, without children, with more than four years of study and basic monthly income of one to three minimum wages. Fifty-one individuals were identified using CIC, indicating the prevalence of 65.4%. The results point to the correlation of SCI with lumbar injuries with firearm accidents, thoracic injuries in relation to traffic accidents, and cervical lesions related to shallow water diving injuries. As for complications, tetraplegia had a greater influence as a risk factor for all complications related to paraplegia, but presented a protective factor for pain syndromes. The most frequent

complication was urinary infection (76.4%). The reuse of the catheter generated risks of urinary infection, bleeding, and obstruction, whereas its non-reuse was a protective factor for the same complications. The use of a lubricated catheter was presented as a protection factor for all the complications studied.

## DISCUSSION

CIC is related to risks and complications, as so many other strategies available in the literature; however, when in comparison to these, injuries are minimized. It is noticeable that advances are necessary in the field of nursing so that good practices are disseminated and so that people with neurological dysfunction of the lower urinary tract can adhere to better choices, reflecting positively in their daily lives and quality of life.

## CONCLUSION

**There is a considerable prevalence of CIC use among people with SCI, constituting a protection factor for urinary infection in this group, when compared to other forms of micturition control.**

The lack of notification is a limiting factor for research and for the construction of new public policies aimed at preventing the external causes that are determinant of SCI and the elaboration of actions focused on specialized care in order to minimize complications and improve the quality of life of this population.

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