

EPIDEMIOLOGICAL ASPECTS OF NEUROGENIC LOWER URINARY TRACT DYSFUNCTION IN THE REPUBLIC OF MOLDOVA

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Introduction

Neurogenic lower urinary tract dysfunction (NLUTD) is a dysfunction of the lower urinary tract secondary to confirmed pathology of the nervous system.¹ It represents a heterogeneous entity, that may result from a variety of conditions affecting the central and peripheral nervous system.² The location and extent of the lesion in the neurological axis determines the general pattern of lower urinary tract (LUT) dysfunction, which is reflected in the patient's symptoms.³ The comprehensive assessment of neurological patients reporting LUT symptoms involves a multidisciplinary team, including the treating neurologist, urologist, rehabilitation specialist, primary care physician, nurses and therapists.⁴ There are no exact data on the overall prevalence of neuro-urological disorders in the general population, but data are available on the prevalence of the underlying conditions and the relative risk of these for the development of neuro-urological symptoms.¹ In the Republic of Moldova there are no available data on the epidemiology of NLUTD.

Keywords

Neurogenic lower urinary tract dysfunction, neurogenic bladder, neuro-urology, urinary bladder, epidemiology.

Purpose

Estimation of the frequency and spectrum of Neurogenic lower urinary tract dysfunction types in the Republic of Moldova.

Material and methods

A selective descriptive study based on F003/e of patients treated in IMSP Institute of Mother and Child (IMC) during the period 2017-2019 was performed. The selection criteria were the clinical diagnosis of: Uninhibited neuropathic bladder, not elsewhere classified (N31.0) or Reflex neuropathic bladder, not elsewhere classified (N31.1) or Flaccid neuropathic bladder, not elsewhere classified (N31.2). Based on these criteria, 478 patients were included in the study.

References

1. EAU Guidelines. Edn. Presented at the EAU Annual Congress Copenhagen 2018. ISBN 978-94-92671-01-1 [EAU2019]
2. Sturm RM, Cheng EY. The management of the pediatric neurogenic bladder. *Curr Bladder Dysfunct Rep.* 2016;11:225-233. doi: 10.1007/s11884-016-0371-6.
3. Panicker JN, Fowler CJ, Kessler TM. Lower urinary tract dysfunction in the neurological patient: clinical assessment and management. *Lancet Neurol.* 2015;14:720-32[10;1]
4. Tudor KI, Sakakibara R, Panicker JN. Neurogenic lower urinary tract dysfunction: evaluation and management. *J Neurol.* 2016;263(12):2555-2564. doi:10.1007/s00415-016-8212-2

Results

Out of 478 patients, included in the study - 116 were hospitalized in 2017, 129 - in 2018 and 233 - in 2019. They represent from 10 to 18% of all urological patients hospitalized in the reference period. (fig. 1)

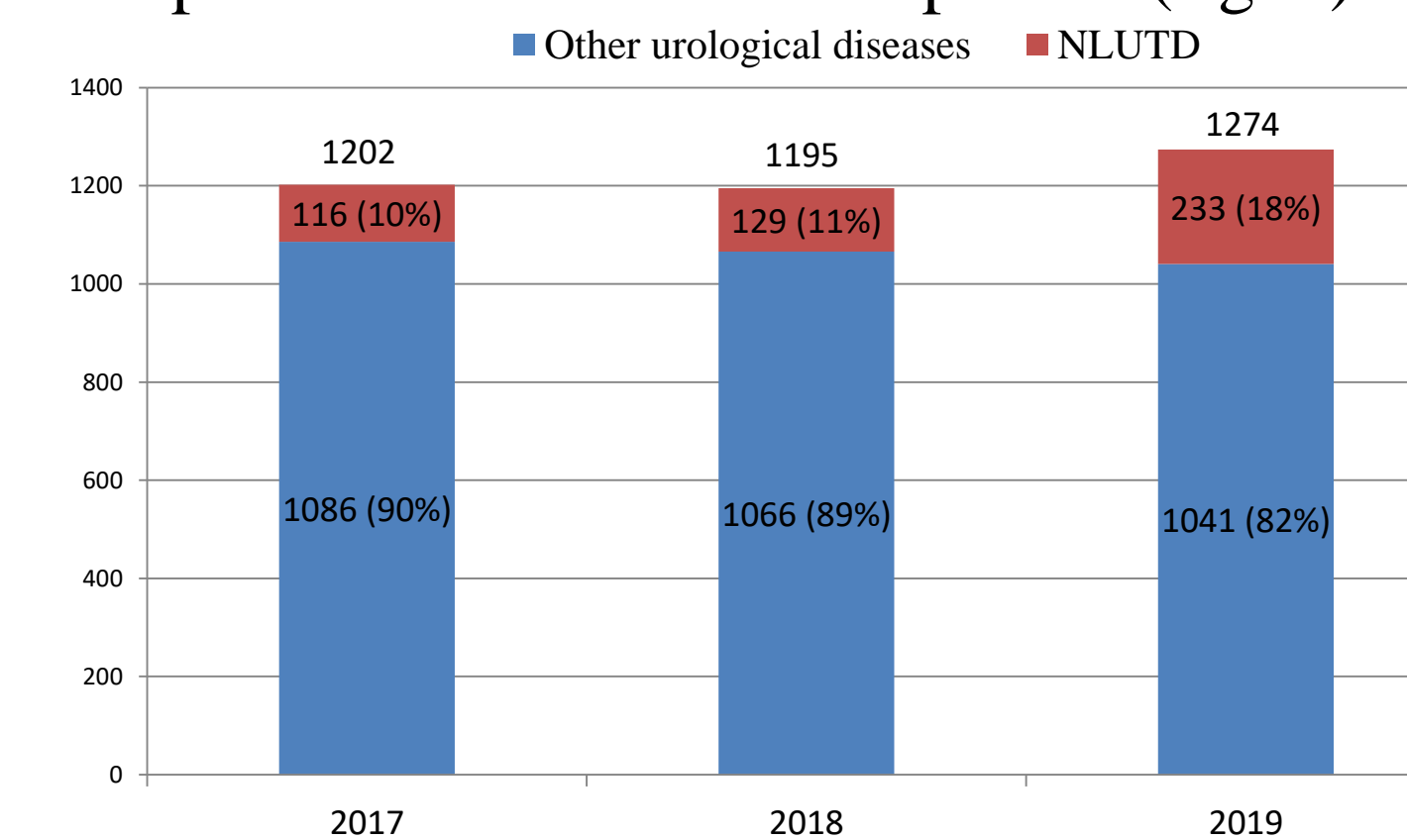


Figure 1. Proportion of patients with NLUTD in the general structure of urological patients, hospitalized in IMSP IMC

The diagnosis of uninhibited neuropathic bladder was present in 29 patients (6%), the reflex neuropathic bladder was established in 274 people (57%), the flaccid neuropathic bladder was diagnosed in 175 patients (37%). (fig 2).

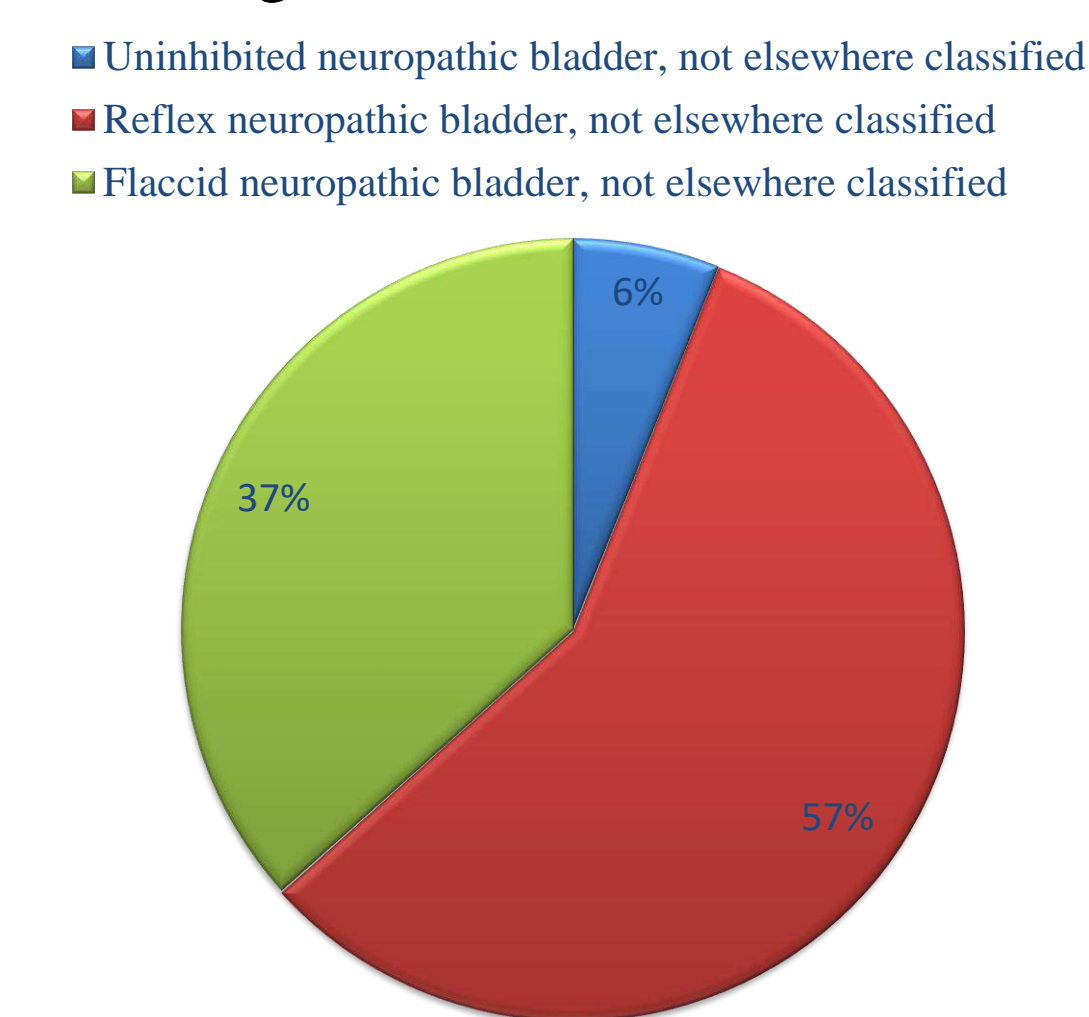


Figure 2. Share of each type of dysfunction in the general structure of NLUTD in the period 2017-2019

Detailed distribution of NLUTD patterns for each year of the reference period of study is reflected in fig. 3.

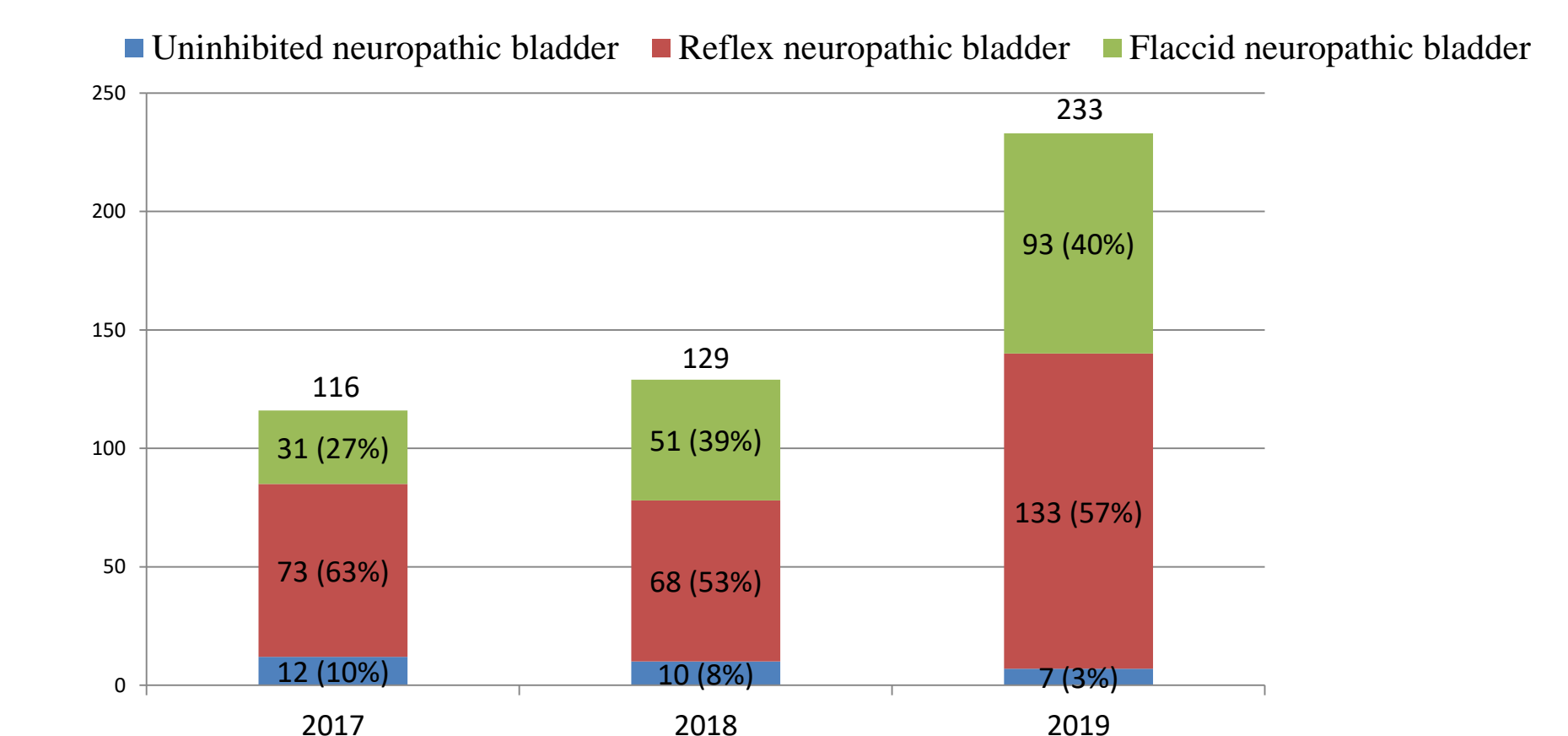


Figure 3. Proportion of each type of pathology in the general structure of patients with NLUTD in the IMSP IMC

Patients with uninhibited neuropathic bladder were hospitalized mainly in the Nephrology department (93%), but those with reflex neuropathic bladder and flaccid neuropathic bladder - in the Urology department (97.8% and 86.3% respectively). (fig 4.)

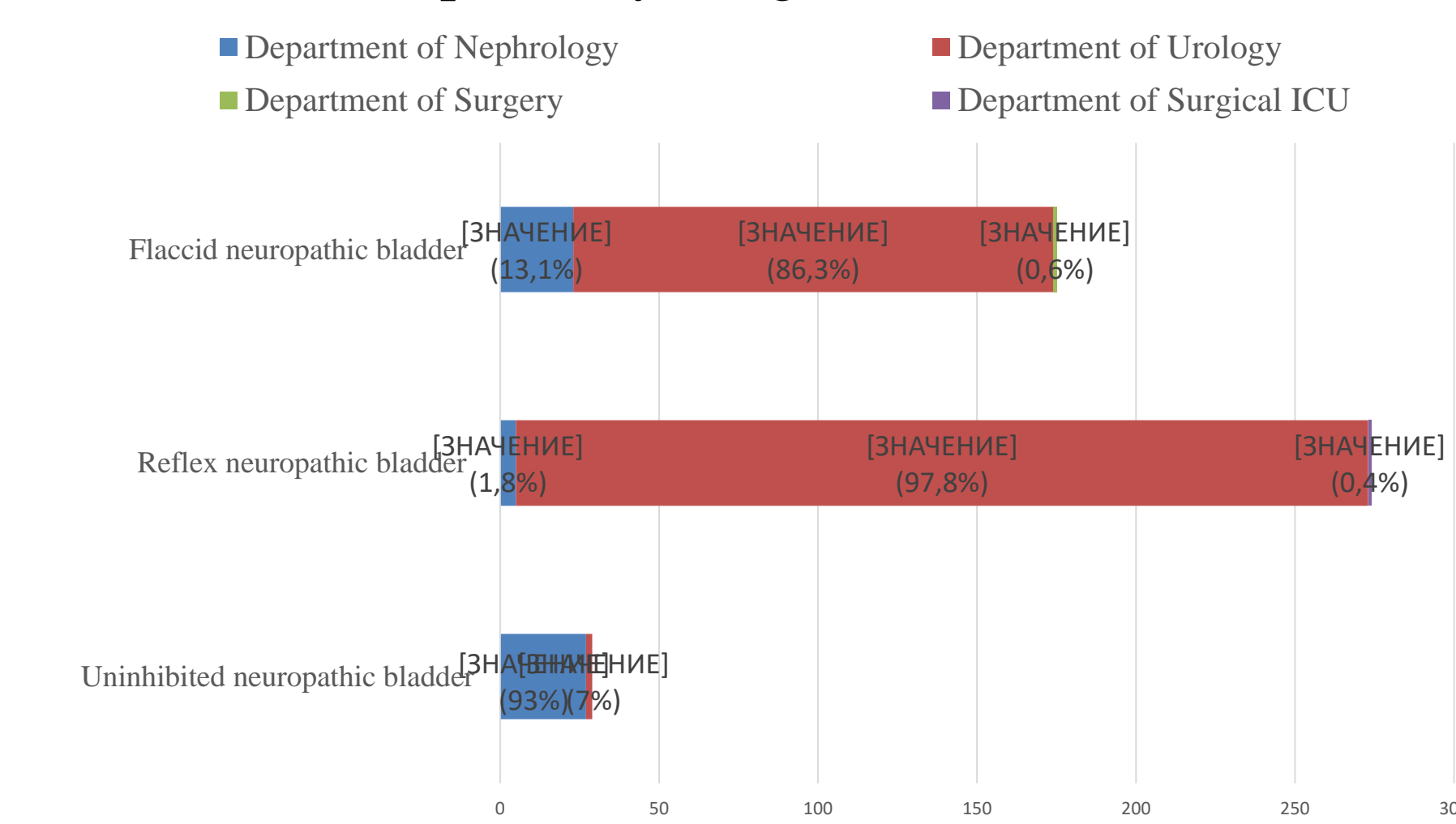


Figure 4. Distribution of patients by departments according to the type of NLUTD

Conclusions

1. The frequency of Neurogenic lower urinary tract dysfunction in the Republic of Moldova is increasing (116 - in 2017, 129 - in 2018 and 233 - in 2019)
2. Predominates reflex neuropathic bladder (57%), followed by flaccid neuropathic bladder (37%). However, epidemiological studies are needed to establish the prevalence at the population level.