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[Perspective] The study of Safety of Inpatient Health Care needs to include adverse event rates from venous and urinary catheters

Paul Froom¹, Zvi Shimoni²

¹ Tel Aviv University

² Ariel University

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Abstract

It is important to study adverse events in hospitalized patients in order to prevent them. The objective of this perspective is to emphasize the importance of including adverse events from the use of venous and urinary catheters that require daily monitoring.

Paul Froom¹ and Zvi Shimoni²

¹ *Clinical Utility Department, Sanz Medical Center, Laniado Hospital, Netanya, Postcode 4244916, Israel; And School of Public Health, University of Tel Aviv, Israel, froomp@gmail.com*

² *The Adelson School Of Medicine – Ariel University, Israel and Sanz Medical Center, Laniado Hospital, Netanya, Postcode 4244916, Israel, zshimoni@laniado.org.il*

Address For Correspondence: Prof. Paul Froom MD, Clinical Utility Department, Sanz Medical Center, Laniado Hospital, Netanya, Postcode 4244916, Israel: froomp@gmail.com, Tel: 972506261353, Fax 97246243302. Phone number 972-506261353. ORCID: 0000-0001-5126-8590.

Recently, in a random sample of 2809 admissions Bates DW et al identified 23.6% of hospitalized patients with at least one adverse event defined as “unintended physical injury resulting from or contributed to by medical care that requires additional monitoring, treatment, or hospitalization, or that results in death [1].” However, the frequency of such events was underestimated because it included only 3.1% of patients with an intravenous infiltrate and no patients with a side effect of urinary catheter insertion outside of perhaps a catheter associated urinary tract infection.

These events require the inclusion of daily nursing reports that evaluate possible side effects from catheters. One review found that the rate of phlebitis was around 8% independent of the dressing used or securing methods [2] and overall adverse event rates after venous catheterization have been reported to be 30% or more [3]. Also, it is important to monitor urinary catheters in order to limit their use and identify complications. In 199 United States hospitals in 2015, 18.7% of

surveyed hospitalized patients had a urethral catheter in place ^[4] that besides being responsible for nosocomial infections, as many as 7.0% of hospitalized patients are discharged without removing the catheter, with subsequent restrictions in daily living, and need to replace catheters ^[5]. Furthermore, about 20% of patients report urgency, burning, difficulty starting or ending the stream after catheter removal ^[5]. Infrequent complications comprise urethral strictures or erosions in up to 3%, gross hematuria in 4.7%, and accidental removal in 4.0% ^[6]. It is important to monitor the safety of urinary and venous catheters to limit their use, and assure the early identification of adverse events such as phlebitis. It is unclear if that is done in Massachusetts and other regional hospital systems ^[1].

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