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Japan-based Shimadzu unveils integrated system for urine volume measurement

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Measuring urine volume based on the difference in body weight before and after urination, eliminating the need for urine collection

Japan-headquartered firm Shimadzu Corporation has launched the “Urina” integrated management type urine volume measurement system. Urina is a medical device that accurately measures urine volume based on the difference in body weight before and after urination, eliminating the need for urine collection.

The newly released management system enables integrated management of patient urine volume information from the nurses’ station, thereby reducing the risk of infection and improving operational efficiency in healthcare facilities.

Urina precisely measures urine volume based on slight changes in a patient's weight before and after urination. Thus, urine collection is no longer necessary, reducing container cleaning operations and costs.

The measurement system consists of a urine volume meter (controlled medical device class I), a management terminal, and a patient terminal.

In developing the prototype of this system, Shimadzu collaborated with Nagoya University Graduate School of Medicine (now Chukyo Hospital), and the University of Yamanashi Graduate School of Medical and Nursing Sciences, Faculty of Medicine.

The system reduces tasks associated with urine collection, such as container washing or disposal as infectious waste. Measurements are recorded automatically, eliminating the need for paper output or manual recording of urine volume by patients or healthcare professionals.

In July 2021, Shimadzu launched the Urina individual management type urine volume measurement system. In the individual management model, each patient operated a dedicated mobile terminal. On the other hand, in the integrated management model, multiple patients share a single terminal by authenticating the barcode on a wristband with registered patient information.