INTERNATIONAL STANDARD

ISO 8669-3

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Urine collection bags —

Part 3:
Verification of rated volume

Poches de recueil d'urine —

Partie 3: Contrôle du volume spécifié

Reference number
ISO 8669-3:1990(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 8669-3 was prepared by Technical Committee ISO/TC 173, *Technical systems and aids for disabled or handicapped persons*.

ISO 8669 consists of the following parts, under the general title *Urine collection bags*:

— *Part 1: Vocabulary*

— *Part 2: Determination of dimensions*

— *Part 3: Verification of rated volume*

— *Part 4: Determination of freedom from leakage*

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Urine collection bags —

Part 3:
Verification of rated volume

1 Scope

This part of ISO 8669 specifies a method of determining that a urine collection bag will contain the rated volume of fluid. The method does not apply to the accuracy of any graduations marked on the bag.

NOTE 1 The various methods of attaching body-worn bags to the body and the influence of clothing, etc. can affect the useful volume of the bag in service. When the bag is worn on the body, its capacity may be less than that determined by this method.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 8669. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8669 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 8669-1:1988, *Urine collection bags — Part 1: Vocabulary*.

ISO 8669-2:1988, *Urine collection bags — Part 2: Determination of dimensions*.

3 Definitions

For the purposes of this part of ISO 8669, the definitions given in ISO 8669-1 and the following definition apply.

rated volume: maximum volume of urine that is recommended by the manufacturer as the capacity of the bag.

4 Principle

A previously measured volume of water, corresponding to the rated volume, is allowed to flow into the bag by simple gravitational flow from a reservoir.

The bag and reservoir are examined to verify that all the fluid has entered the bag.

The test is designed to minimize error caused by air being drawn into the bag during the filling operation.

5 Temperature for testing

A test temperature of 23 °C ± 2 °C shall be used for testing.

6 Apparatus and fluid

6.1 Reservoir, vented to the atmosphere and capable of holding the rated volume of water, fitted with an outlet tube and a closure near its end, the reservoir being able to drain (without a bag connected) at a rate of not less than 2 l/min.

6.2 Means of connecting the outlet of the reservoir to the inlet tubing of the bag.

6.3 Graduated measuring cylinder, large enough to hold the rated volume.

6.4 Tap water at 23 °C ± 2 °C.

6.5 Manufacturer's recommended suspension system for non-body-worn bags.

6.6 Means of suspending a body-worn bag in a manner that does not restrict its rated volume capacity, and that allows the bag to hang freely in a vertical position.

7 Preparation of sample

The length of the inlet tubing (dimension B according to ISO 8669-2) shall be 50 mm or less. If necessary, cut the tube to a length of 50 mm.

8 Procedure

8.1 Suspend the bag in one of the following ways:

a) for non-body-worn bags, use the manufacturer's recommended suspension system (see 6.5);

b) for body-worn bags, use means that will not restrict its capacity (see 6.6).

8.2 Ensure that the closure of the reservoir is closed. Add to the reservoir by means of the measuring cylinder a volume of tap water equal to the rated volume.

8.3 Remove air from the reservoir outlet (e.g. by opening the closure and allowing a small quantity of water to drain into the measuring cylinder. Return this water to the reservoir.)

8.4 Ensure that the bag is deflated, and connect the inlet tubing to the outlet of the reservoir. Ensure that the bag hangs freely in a vertical position and is clear of any obstruction.

8.5 Open the closure of the reservoir and allow the fluid in the reservoir to drain, ensuring that no air is entrained into the bag. If drainage time exceeds 5 min, this fact shall be reported.

8.6 Check that there have been no leaks in the system. If leakage has occurred, deem the test invalid and repeat it, using a fresh bag if necessary.

8.7 Determine if all the water has entered the bag and that the water level is no higher than the point where the inlet tube intersects the bag.

9 Test report

The test report shall include the following information:

a) a reference to this part of ISO 8669;

b) identity of the bag tested;

c) the rated volume;

d) the test result;

e) the date and place of testing;

f) if appropriate, a statement that the filling time of the bag exceeded 5 min.

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Descriptors: disabled persons, urine collection bags, tests, volume measurement.

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