

Urine Analysis 尿液檢驗

1. Purpose

- 1.1 The purpose of urine analysis is to measure up to 10 parameters such as blood glucose, protein, bilirubin, pH, blood, ketones, urobilinogen, specific gravity, nitrite and leukocytes by using a test strip called 10EA.

2. Safety Requirements

- 2.1 General laboratory procedures should be followed, which include: no eating, no chewing gum, no drinking, and no applying of cosmetics in the work area. Laboratory coats and gloves must be worn at all times in the work area, unless the protocol specifically describes the appropriate attire for the procedure.

3. Associated Equipment

- 3.1 Mini Centrifuge
- 3.2 Vortex Mixer

4. Notes

- 4.1 Wear protective gloves while collecting urine sample to avoid contacting with pathological microbes.
- 4.2 Sufficient amount of urine is required (100 μ L) to analyze up to 10 parameters.
- 4.3 Deliver the urine sample within 1 hour after collection if possible or seal the sample at low temperature (4 $^{\circ}$ C) and deliver to TMC as soon as possible.
- 4.4 Do not centrifuge the urine sample.
- 4.5 Do not adulterate the urine sample.
- 4.6 Do not expose the urine sample to sunlight directly.
- 4.7 Do not provide bloody urine.
- 4.8 Urine sample is not allowed to contain ascorbic acid.

5. Quality Control

- 5.1 Two Check Strips which is White and Gray respectively are used to ensure the reflectance values are in an acceptable range.

6. Equipment

- 6.1 AUTION ELEVENTM AE-4020, ARKRAY
- 6.2 AUTION Sticks 10EA, ARKRAY
- 6.3 Metabolic Cage, TECNIPLAST[®]

7. Supplies

- 7.1 Urine ~100 μ l
- 7.2 Glove
- 7.3 Paper towel
- 7.4 Wiper
- 7.5 Tip
- 7.6 Eppendorff
- 7.7 Test Strip
- 7.8 70% alcohol
- 7.9 Mask

8. Procedures

- 8.1 Collect urine sample
- 8.2 Allow the urine sample come to room temperature
- 8.3 Stir the urine sample
- 8.4 Check (i) test strip
(ii) thermal recording paper
- 8.5 Turn on AUTION ELEVENTM AE-4020
- 8.6 Check the setting
- 8.7 Set the ID number
- 8.8 Prepare test strip
- 8.9 Confirm the icon is at normal measurement mode.
- 8.10 Drop the urine sample (10 μ L) on each parameter spot of the test strip for 2 second
- 8.11 Absorb the extra urine on a paper towel
- 8.12 Place the test strip on the test strip tray
- 8.13 Prepare the next test strip
- 8.14 Turn off AUTION ELEVENTM AE-4020
- 8.15 Sterilize the test strip tray and carrying arm.
- 8.16 Discard the test strip and used urine sample to the biohazard garbage bin.

