

ORIGINAL ARTICLE

Request Pattern, Pre-Analytical and Analytical Conditions of Urinalysis in Primary Care: Lessons from a One-Year Large-Scale Multicenter Study

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SUMMARY

Background: To study the urinalysis request, pre-analytical sample conditions, and analytical procedures.

Methods: Laboratories were asked to provide the number of primary care urinalyses requested, and to fill out a questionnaire regarding pre-analytical conditions and analytical procedures.

Results: 110 laboratories participated in the study. 232.5 urinalyses/1,000 inhabitants were reported. 75.4% used the first morning urine. The sample reached the laboratory in less than 2 hours in 18.8%, between 2 - 4 hours in 78.3%, and between 4 - 6 hours in the remaining 2.9%. 92.5% combined the use of test strip and particle analysis, and only 7.5% used the strip exclusively. All participants except one performed automated particle analysis depending on strip results; in 16.2% the procedure was only manual.

Conclusions: Urinalysis was highly requested. There was a lack of compliance with guidelines regarding time between micturition and analysis that usually involved the combination of strip followed by particle analysis. (Clin. Lab. 2018;64:xx-xx. DOI: 10.7754/Clin.Lab.2018.171239)

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Supplementary Material: Survey submitted to participant laboratories.

PRE-ANALYTICAL CONDITIONS

- 1) **Do you have any recommendation regarding patient urine collection?**
a) First morning urine b) Other c) No recommendation
- 2) **Where is the sample collected?**
a) At home
 (first morning urine) b) Primary care center
 (random urine) c) Unknown
- 3) **How long does it take for the sample to arrive from the primary care center to the laboratory?**
a) Less than 2 hours c) Between 4 - 6 hours
b) Between 2 - 4 hours d) More than 6 hours

ANALYTICAL CONDITIONS

- 4) **In Primary Care setting, do you just use the strip?**
a) Yes b) No
- 5) **If automated particle analysis is also available, is it performed based on algorithms according to strip results?**
a) Yes b) No
- 6) **If yes, on what percentage of samples is automated particle analysis performed?**
a) 10% c) 20% e) 30% g) > 40%
b) 15% d) 25% f) 40%
- 7) **Is manual particle analysis also performed?**
a) Yes b) No
- 8) **If yes, on what percentage of samples is manual particle analysis performed?**
a) < 5% c) 15% e) 25% g) 40%
b) 10% d) 20% f) 30% h) > 40