

# The Importance of Correct Specimen Collection and Storage for Urinalysis Testing

Chemical and Microscopic Urinalysis test results may be adversely affected by inadequate storage conditions, and by delay between specimen collection and testing. At room temperature, urine specimen stability is limited to 2 - 6 hours, depending on the urine constituents tested.<sup>1,2</sup> Refrigerated urine specimens are stable for 24 hours without chemical preservative added, or three days when preserved (LifeLabs in-house specimen stability study, 2018). When specimens with compromised stability are tested, falsely elevated (e.g. proteins) or falsely decreased (e.g. red blood cells, white blood cells) results may be obtained.

Based on the urine stability limitations, we recommend health care providers follow these steps when collecting specimens and interpreting results for urinalysis testing:

- Please avoid sending to LifeLabs urine specimens kept at room temperature for longer than 2 hours. These specimens should be recollected.
- Always provide date and time of collection on the specimen container and/or on the OHIP requisition (see Figure 1). In case we receive specimen without the date and/or time of collection, LifeLabs will alert the health care provider of potentially affected result, using the following interpretive comment:

“Interpret results with caution as date and/or time of collection was not provided to the lab. Urine is stable for 24h when refrigerated.”

- Pay attention to the interpretive comments provided with the urinalysis results. In addition to the above comment when date and/or time of collection is not provided, LifeLabs will also inform the health care provider in case the specimen arrived in the laboratory more than 24 hours after the collection, and will reject the sample that arrived in the laboratory more than 48 hours after the collection.

For further information on specimen handling please visit LifeLabs Test Information Directory:

[http://tests.lifelabs.com/Laboratory\\_Test\\_Information/Homepage.aspx](http://tests.lifelabs.com/Laboratory_Test_Information/Homepage.aspx)

Please also refer to the LifeLabs Inside Diagnostics Newsletter from December 2018 for the information on how other specimens at LifeLabs are handled when received without collection date and/or time:

<https://www.lifelabs.com/hcps-newsletter/inside-diagnostics-december-2018-copy/>

