

Laboratory Response Network - Chemical Proficiency Testing Program

Goal/purpose

The goal of the Laboratory Response Network for Chemical Threats (LRN-C) Proficiency Testing program (PT) is to ensure that all member laboratories achieve comparable results in detecting chemical exposure biomarkers. To maintain consistency among results, calibration and quality control (QC) materials approved for the program are provided for purchase by PT participants. For response methods, laboratories should use analytical methods validated within the National Center for Environmental Health (NCEH) Division of Laboratory Sciences (DLS) and transferred to the LRN-C. However, individual laboratories may make adjustments to these methods for participation in the LRN-C PT program. The Centers for Disease Control and Prevention (CDC) NCEH/DLS in Atlanta, GA designs and manages the PT program.

For each PT Challenge, participating laboratories must report results within the specified timeframe through the LRN Results Messenger. CDC may use PT Challenge results to identify any quality issues with network methods or materials which may impact national emergency response capabilities. This PT program meets the Clinical Laboratory Improvement Amendment (CLIA) recommendations for inter-laboratory comparisons, but is not a CLIA-approved proficiency testing program.

Scheme design

Each PT Challenge comprises 10 matrix samples. Sample fortification levels may not exceed the calibration range of the LRN-C transferred methods (Table 1). The samples may include matrix samples without analyte fortification to evaluate false positive reporting or, in select cases, background levels of endogenous analytes.

CDC provides a total of three PT Challenges per method annually and conducts each challenge over a minimum of two weeks. CDC annually publishes the dates for each PT Challenge on the LRN-C PT calendar, which is available on the LRN website. Laboratories can request access to the LRN website at [https://lrnb.cdc.gov/\(S\(xibroqaarsnzq2f3v4i5nx2d\)\)/login.aspx](https://lrnb.cdc.gov/(S(xibroqaarsnzq2f3v4i5nx2d))/login.aspx).



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RESPONSE
NETWORK**

Department of
Health and
Human
Services

Centers for
Disease Control
and Prevention



PARTNERS IN PREPAREDNESS

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