NEW YORK STATE | Department of Health | Wadsworth Center

ASSAY APPROVAL IN TOXICOLOGY

Please submit all information as outlined below. Submit one hard copy of the entire package and one electronic copy (as PDF files on a CD or flash drive) to: **Clinical Laboratory Evaluation Program, Wadsworth Center, New York State Department of Health, P.O. Box 509, Empire State Plaza, Albany, NY 12201-0509; Attn: Assay Validation Review. Please review the Digital Submissions Requirements on our website to appropriately prepare the electronic copy.** Materials submitted, including related data packages, cannot be returned to the laboratory.

A completed **Risk Attestation Form** must accompany this submission in both paper and electronic copy. Please submit the electronic copy of the **Risk Attestation Form** as a stand-alone file.

SECTION 1: GENERAL INFORMATION

Lab Name: _____ PFI: _____

Contact Person: _____

Phone: _____ Fax: _____ Contact E-mail: _____

Assay (Test) Name (e.g., buprenorphine): _____

Methodology (e.g., EIA; LC-MS/MS): _____

Analyte(s) included (if different from Assay Name): _____

Validated Specimen Type(s) _____

Clinical Purpose: _____

Permit Category: (subject to final determination by CLEP) _____

Laboratory Director/Assistant Director (NYS Certificate of Qualification Holder for the appropriate Permit Category)

CQ Code _____ Signature _____ Date _____

Laboratory Director (if not the responsible CQ Holder for the appropriate Permit Category)

CQ Code _____ Signature _____ Date _____

SECTION 2: COMPLETE THIS PART ONLY FOR RUO OR IUO KITS ALL OTHER SUBMISSIONS REQUIRE COMPLETION OF SECTION 3.

☐ Research Use Only (RUO) kit or ☐ Investigational Use Only (IUO) kit:
Attach summary of the establishment of, or verification of, performance characteristics; attach sample patient reports and copy of the package insert.

SECTION 3: COMPLETE THIS ENTIRE SECTION AND PROVIDE ALL REQUIRED ATTACHMENTS

Please submit the following documentation, organized as numbered attachments as indicated below. If an item is not included, indicate the reason. Indicate the **page numbers and/or tabs where** the items and/or attachments can be found. **SUBMISSIONS THAT ARE NOT ORGANIZED AS DESCRIBED MAY BE RETURNED AND THE REVIEW SIGNIFICANTLY DELAYED.** Refer to the New York State General System Standards and any relevant Specialty Standards in preparing your submissions.

Section 3.1: Standard Operating Procedure Manual (SOPM)

Procedure manuals must contain all required elements as described in the NYS General Systems Standards, **Operating Procedures Sustaining Standard of Practice 2 (SOPM S2): Content**.

Page/Tab	
	Practitioner and patient educational materials that include a description of assay limitations and, where applicable, other information as may be necessary for informed consent of test subjects.
	Clinical indications for testing and if results would be used to monitor continuing treatment or compliance.
	Test subject preparation, specimen collection and handling, specimen rejection criteria, including a description of the mechanism to assure collection and transport requirements have been followed.
	A description of the assay, assay principle and clinical validity.
	List of equipment / instrumentation essential to the assay.
	Reagents: source, preparation, storage stability and handling. This must include detailed procedures for the preparation of stock solutions, calibrators and quality control samples, if prepared in-house.
	Source and verification of standards / calibrators, quality control materials if commercially purchased.
	Complete and detailed procedures for performing the assay, including algorithms and flowcharts as necessary and any safety considerations.
	If dilution procedures involved, describe the nature of the diluent, amount, back-calculation, and results reporting. The dilution procedure is required for validation as detailed in Section 3.4.
	Calculation of results and interpretation. This must include a detailed policy and procedure, including quality control for manual integration or other manual data adjustments.
	Assay interferences and limitations.
	Quality Assurance: Identify the critical steps in the test procedure and the quality control measures taken to control and monitor assay performance for consistent and reliable results. Description of the type (e.g., blank or positive), number, frequency and placement of the QC samples in an analytical run. This must include detailed procedures describing the review and acceptance of both batch and sample quality controls.
	Quality Assurance: Policy and procedures to meet the **Quality Assessment Sustaining Standard of Practice 3 (QA S3): Ongoing Verification of Examination Accuracy**

Section 3.2: Requisition and Reporting

Page/Tab	
	A sample requisition form containing all the required elements in **Requisition Sustaining Standard of Practice 4 (Requisition S4): Request Form**.
	A policy and procedure for patient result reporting. Compliance with the New York State Toxicology Specialty Standards must be demonstrated.
	Sample reports (in the laboratory's official report format) for all applicable findings including interpretive text, assay limitations (both diagnostic and technical limitations), compliant with **Reporting Sustaining Standard of Practice 1 (Reporting S1): Report Content**, and any disclaimer required by the federal government such as that required for ASRs.

Section 3.3: References

Page/Tab	
	Copies of literature references that describe the scientific basis and support the clinical validity of the assay.
	Test kit package insert if the test is commercially distributed, or package inserts for any commercially prepared reagents.

Section 3.4: Validation Summary, Protocol and Representative Data

NOTE: Establishment of assay performance in the specialty of Toxicology should be based upon the following FDA Guidance Document (Bioanalytical Method Validation), available here:
http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM070107.pdf

Page/Tab	VALIDATION STUDIES
	NARRATIVE SUMMARY of the validation studies performed with results and conclusions must be submitted and should be supported by providing the laboratory's validation protocols. **The summary must address how analytical and clinical performance characteristics were established and describe any comparative methods and the source and number of specimens**. Raw data must be provided using an appropriate number of samples across all representative specimen matrices and expected outcomes. Data should be summarized with clearly labeled tables and figures.
	Specimen transport conditions
	Stability of analyte in the defined sample matrix, storage duration and conditions.
	Accuracy to address both undiluted and diluted specimens.
	Precision (reproducibility, both within (intra-) and between (inter-) runs) (including both undiluted and diluted specimens, when applicable).
	Reportable range, where applicable (calibration of quantitative tests).
	Analytical sensitivity (limit of detection and/or quantitation).
	Analytical specificity as assessed using analogs, if available, matrix effect and abnormal sample conditions, e.g., lipemic, icteric and hemolysis, if applicable.

	Carry-over studies to assess possible cross contamination between sampling for each analyte or drug.
	Clinical validity (sensitivity and specificity) establishment: • Describe the protocols used to determine the clinical status of test subjects • Describe the procedure used to blind the clinical status of specimens during testing • Describe the procedures used to resolve discrepant or equivocal test results • Present data used for the determination of clinical sensitivity, specificity and/or predictive values
	A description of studies performed to validate any data reduction and interpretation processes, including statistical or algorithmic calculations. This includes manual integration or other manual data adjustments.
	A description of how reference intervals or assignment of cutoff values were determined, if applicable.

Page/Tab	REPRESENTATIVE SPECIMEN RUN
	Provide actual instrument printouts, worksheets, or charts from one representative run, including all calibration and quality control materials.

Page/Tab	TABLE OF ANALTYE PARAMETERS
	Supply a table describing the following for each analyte (drug) in the multi-analyte test[1]: • Analyte (drug) name • Lower limit of detection (LOD) concentration[2] • Lower limit of quantitation (LLOQ) concentration[3] • Cutoff concentration[4] • Midpoint calibrator concentration (nearest middle of reportable range)[3] • Upper limit of quantitation (ULOQ) concentration • Low QC concentration[5] o For qualitative testing = negative control o For quantitative testing = ≤(3xLLOQ) and/or near cutoff • High QC concentration[5] o For qualitative testing = positive control o For quantitative testing = ≤25% below the ULOQ
	Notes: 1. This table is to record the values necessary to meet the minimum requirements. Additional calibrators and QC samples are strongly suggested, but do not need to appear in this table. 2. See Validation Sustaining Standard of Practice 5 (Validation S5): Performance Specifications, part b requirements. 3. See Calibration Sustaining Standard of Practice 2 (Calibration S2): Periodic Verification, part b requirements; At least one calibrator replicate at the method LLOQ and ULOQ concentrations must be used in the generation of every calibration curve. These calibrators define the reportable range and cannot be dropped. 4. See Validation Sustaining Standard of Practice 6 (Validation S6): Qualitative Results Interpretation and Clinical Toxicology Standard 3 (CT S3); When test results are reported as positive or negative based on a cutoff value, the overall test must meet these standards. 5. See Quality Control Sustaining Standard of Practice 2a (QC Design S2a): Minimum Requirements, part b requirements.