To:	Chandler, Amanda (WSP); Cruz, Brittany (WSP); Daniel, Kelly (WSP); Dougher, Stacey (WSP); Flaherty, Rebecca (WSP); Flay, Corie (WSP); Fuller, Madison (WSP); Gingras, Andrew (WSP); Johnston, Christopher S. (WSP); Krantz, Mindy (WSP); Louis, Asa (WSP); Nguyen, David (WSP); Nuwayhid, Naziha (WSP); Okolie, Onyi (WSP); Sachs, Aaron (WSP); Sklerov, Dawn (WSP); Valencia, Darlene (WSP); Williams, Kimberly (WSP)
Cc:	Black, Amanda (WSP); Capron, Brian (WSP); Harris, Katie (WSP); O"Neill, Kari (WSP); Peterson, Brianna (WSP); Wehner, Elizabeth (WSP); Couper, Fiona (WSP)
Subject:	Urine EMIT Spiked Control
Date:	Thursday, October 11, 2018 12:44:11 PM

Good morning.

Effective today, October 11, 2018, the following changes to the Urine EMIT procedure will be implemented:

18.6.3.2.1.b: To prepare the urine positive control, add 30µL of the Urine EMIT working control standard to 1.0 mL of blank urine in a 12x75mm tube. Cap the tube and vortex mix. Transfer the contents to a sample cup. Multiple positive control sample cups may be filled from this control. Note that if the green QC rack is run concurrently with the test batch, a sample of this spiked control serves as the positive at the start of the batch.

This positive control replaces use of the previous spiked urine control listed in the procedure for Screening of Biological Specimens by Enzyme Multiplied Immunoassay Technique (EMIT) (TSe12718 – Rev. 6) as well as the UTAK V control that was run in the green QC rack.

Please note that the Urine EMIT Working Control standard used to spike the control is not the Blood EMIT Working Control Standard. Lot number UE181010-Q has been prepared, tested, and approved for use. Amanda will attach this email to the EMIT procedure on SharePoint when she returns on Monday.

If you have questions, please see a supervisor or me.

Thank you.
Brianne

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To:	Capron, Brian (WSP); Chandler, Amanda (WSP); Couper, Fiona (WSP); Flaherty, Rebecca (WSP); Gingras, Andrew (WSP); Harris, Katie (WSP); Johnston, Christopher S. (WSP); Knoy, Justin (WSP); Knoy, Lyndsey (WSP); Louis, Asa (WSP); Mitchell-Mata, Christie (WSP); Nguyen, David (WSP); Nuwayhid, Naziha (WSP); O"Reilly, Brianne (WSP); Peterson, Brianna (WSP); Sklerov, Dawn (WSP); Thomas, Brittany (WSP); Wehner, Elizabeth (WSP); Daniel, Kelly (WSP)
Subject:	Liver Homog EMIT and Serum Matrix Match
Date:	Wednesday, December 20, 2017 10:14:00 AM
Importance:	High

Good morning,

Following up on the ABFT discussion in yesterday's lab meeting, please implement these changes immediately:

-discontinue performing EMIT testing on liver homogenate samples; we will begin follow-up validation to confirm performance of liver homogenate specimens on the Olympus
-when testing serum samples for quantitation with any test method other than amines LCMSMS (where serum matrix was investigated in validation), run a calibration curve and all positive control levels in serum matrix; please notify me when the need arises to do this, as this can serve as our experiment to "validate" that it is appropriate to quantify serum specimens against the blood curve; as time permits, the QA department will also make our way through the remaining test methods, running this serum evaluation
-when performing qualitative testing on serum or liver homogenate samples, please include a positive and a negative control for these matrices

We now have negative serum for this purpose. There will be tubes of negative serum in the freezer above the blank blood refrigerator.

I will keep you all informed of progress, so you know when you can resume liver homogenate EMIT testing and which test methods have been evaluated for serum matrix quantitation.

More information on the basic drug screen positive control levels will come later (as I have it).

Thanks for your patience.

Amanda M. Black
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206-262-6100

SCREENING OF BIOLOGICAL SPECIMENS BY ENZYME MULTIPLIED IMMUNOASSAY TECHNIQUE (EMIT)

18.1 POLICY

This test method may be used to presumptively identify several drugs or drug metabolites and/or drug classes as being present in biological specimens.

Any adjustments or deviations from the procedures below must be approved by a member of TLD Management and appropriately documented in the batch.

18.2 PURPOSE

The purpose of this standard operating procedure (SOP) is to provide technical direction for the presumptive identification of amphetamines, barbiturates, benzodiazepines, cannabinoids, cocaine metabolite, and opiates in whole blood, serum, plasma, vitreous humor, or tissue homogenate, and of barbiturates, benzodiazepines, cocaine metabolite and opiates in urine.

18.3 PRINCIPLE

Immunoassays are scientific tests that use antibodies to identify and qualitatively measure amounts of a chemical substance. In forensic toxicology, these are typically used to screen biological samples for the presence of an antigen; most commonly a drug. These are competitive binding assays and are rapid methods for qualitatively detecting individual drugs or metabolites, or classes of drugs in urine or extracted blood or tissue samples.

The assay is based on competition between drug in the specimen and drug labeled with the enzyme glucose-6-phosphate dehydrogenase to antibody binding sites. Enzyme activity decreases upon binding to the antibody, so the relative drug concentration in the specimen can be compared to a known concentration. The enzyme converts NAD+ to NADH, resulting in a change in absorbance that is measured by a spectrophotometer.

Specificity (the degree to which the assay correctly identifies only the compound(s) of interest) is a critical component of immunoassays. Cross-reactivity to structurally similar compounds is inherent. Understanding the compounds that exhibit cross-reactivity is important to data interpretation.

18.4 SPECIMEN

18.4.1 Specimens include whole blood, serum, plasma, urine, vitreous humor and tissue homogenate.

18.4.2 The standard specimen volume of whole blood, tissue homogenate, or vitreous humor is 1 mL.

18.4.3 Smaller volumes of specimens may be analyzed at the Forensic Scientist's discretion.

18.4.4 Analysis of larger specimen volumes must be approved and documented.

18.4.5 Given that serum, plasma, and urine do not require any sample preparation, approximately 8 drops of each sample type is sufficient to complete testing.

18.5 REAGENTS, MATERIALS AND EQUIPMENT

18.5.1 REAGENTS

18.5.1.1 Acetonitrile

18.5.1.2 Certified blank blood

18.5.1.3 Certified blank urine

18.5.1.4 Dilute aqueous *Emit*® Drug Assay Buffer

Emit® Drug Assay Buffer Concentrate (from TCA reagent kit) is diluted 1:14 with DI H_2O. (For example: Add 5 mL concentrated EMIT buffer to 70 mL of DI H_2O and mix, for total volume of 75 mL dilute aqueous EMIT buffer). Changes to the final volume are permitted, provided that the proportions are maintained. This solution is used to prepare the working blood EMIT buffer (18.5.1.9).

18.5.1.5 *Emit*® Drug Assay Buffer Concentrate

18.5.1.6 *Emit*® *II Plus* reagents for amphetamines, barbiturates, benzodiazepines, cannabinoids, cocaine metabolite and opiates (supplied as ready-to-use liquids, kept refrigerated).

18.5.1.7 *Emit*® *tox*™ serum tricyclic antidepressants calibrator and controls, kept refrigerated (as needed for supply) of *Emit*® Drug Assay Buffer Concentrate).

18.5.1.8 Methanol (MeOH)

18.5.1.9 Working blood EMIT buffer

Equal parts dilute aqueous EMIT buffer (prepared in 18.5.1.4) and MeOH are mixed to prepare working blood EMIT buffer. (For example: Mix 525 mL dilute EMIT buffer and 525 mL MeOH for a total volume of 1050 mL working EMIT buffer). Changes to the final volume are permitted, provided that the proportions are maintained. The solution is stored in a plastic or glass bottle at room temperature and expires one year from the date of preparation.

18.5.1.10 UTAK 5 positive urine toxicology control, kept refrigerated.

18.5.2 MATERIALS

18.5.2.1 Disposable 16 x 125mm tubes with closures

18.5.2.2 Disposable 12 x 75mm tubes with closures

18.5.2.3 Fisherbrand conical sample cups (or equivalent)

18.5.2.4 Disposable centrifuge tubes with closures

18.5.2.5 Disposable pipette tips

18.5.2.6 Laboratory glassware (graduated cylinders, flasks)

18.5.2.7 Volumetric glassware (flasks, pipettes)

18.5.3 EQUIPMENT

18.5.3.1 Olympus AU400e

18.5.3.2 Calibrated, adjustable piston pipettes

18.5.3.3 Centrifuge

18.5.3.4 Vortex mixer

18.5.3.5 Evaporator (Caliper LS, formerly Zymark, TurboVap)

18.6 STANDARDS, CALIBRATORS AND CONTROLS

18.6.1 STANDARDS

18.6.1.1 Reference materials (referred to interchangeably in this method as stock standards) are used for the preparation of working standards which in turn are used to produce calibrators for use with all matrices except urine.

18.6.1.2 Stock standards are purchased from an approved reference material supplier and include the following:

a. Benzoylecgonine: 1.0 mg/mL
b. Morphine: 1.0 mg/mL
c. Oxazepam: 1.0 mg/mL
d. Secobarbital: 1.0 mg/mL
e. 11-nor-9-COOH-Δ9-THC 1.0 mg/mL
f. d-Methamphetamine 1.0 mg/mL

18.6.1.3 Working standard (used for all matrices except urine)

a. Using a calibrated pipette, add the following volumes of each compound to a 50 mL Class A volumetric flask:

Compound	Volume (µL)	Final Standard Concentration (mg/L)	Cal Level 1 Concentration (mg/L)	Cal Level 2 Concentration (mg/L)
benzoylecgonine	250	5	0.10 mg/L	-
morphine	62.5	1.25	-	0.05 mg/L
oxazepam	125	2.5	-	0.10 mg/L
secobarbital	250	5	0.10 mg/L	-
(-)-11-nor-9-COOH-Δ9-THC	25	0.5	0.01 mg/L	-
d-methamphetamine	250	5	-	0.20 mg/L

b. Add MeOH to the flask to the designated volume.
c. Adjustments to the final volume are permitted, provided that the proportions and final concentration is maintained.
d. The final concentration of the working standard, and calibrator level target concentrations, are listed in the table above for each compound. The working standard is stored in the freezer in an amber bottle and expires one year from the date of preparation.

18.6.1.4 Working control standard

a. Using a calibrated pipette, add the following volumes of each compound to a 10 mL Class A volumetric flask:

Compound	Volume (µL)	Final Standard Concentration (mg/L)	Low Pos Ctl Concentration (mg/L)	High Pos Ctl Concentration (mg/L)
benzoylecgonine	125	12.5	0.125 mg/L	0.25 mg/L
morphine	60	6	0.06 mg/L	0.12 mg/L
oxazepam	200	20	0.20 mg/L	0.40 mg/L
secobarbital	150	15	0.15 mg/L	0.30 mg/L
(-)-11-nor-9-COOH-Δ9-THC	12.5	1.25	0.0125 mg/L	0.025 mg/L
d-methamphetamine	200	20	0.20 mg/L	0.40 mg/L

b. Add MeOH to the flask to the designated volume.
c. Adjustments to the final volume are permitted, provided that the proportions and final concentration is maintained.
d. The final concentration of the working control standard, and positive control target concentrations, are listed in the table above for each compound. The working standard is stored in the freezer in an amber bottle and expires one year from the date of preparation.

18.6.2 CALIBRATORS – All calibrations are single-point, qualitative only.

18.6.2.1 Blood, Serum, Plasma, Vitreous or Tissue Homogenate:

a. Calibrators are prepared in certified blank blood at the time of analysis using the working standard. The preparation of the calibrators is detailed in 18.7 SAMPLE PREPARATION. If necessary, calibrators may be prepared in alternate matrices provided that the matrix has been previously determined to not contain any of the compounds tested for by this procedure.
b. Single-point calibrations are generated from calibrator level 1 for barbiturates, cannabinoids and cocaine metabolite, and from calibrator level 2 for amphetamines, benzodiazepines and opiates. Single-point calibration levels represent the cutoff concentrations.

18.6.2.2 Urine: Urine calibration is performed as necessary, when testing of urine specimens is needed.

The following calibrators are supplied as liquids, ready to use, and kept refrigerated:

a. *Emit® II Plus* calibrators (level 1, 2, and 3). Stable until expiration date printed on vial.

18.6.3 CONTROLS

Each batch must include at least 10% controls, including both positive and negative controls. The controls must bracket the case specimens and all batches must end with a positive control.

18.6.3.1 Blood, Serum, Plasma, Vitreous, or Tissue Homogenate

18.6.3.1.1 Negative Controls

a. At least two negative whole blood controls are tested at the start of every batch. One is to function as the matrix blank for the spectrophotometer, and the remaining functions as a negative control. All controls are prepared using certified blank blood.
b. If a batch contains more than 30 unknown samples, an additional negative control is created for each 10 samples to bring the total percentage of controls to 10% of the batch. Any additional negative controls are to be spaced as evenly as possible throughout the test batch.

18.6.3.1.2 Positive Controls

a. At least two whole blood positive controls are tested with every batch.
b. Stock standards used to prepare positive controls are obtained from an approved reference material supplier.
c. The control working standard is prepared as described in 18.6.1.4.
d. The preparation of the positive whole blood controls is detailed in 18.7 SAMPLE PREPARATION. Alternatively, quality control personnel may provide in-house positive controls.

18.6.3.2 Urine

See email dated 10/11/18 for changes to urine positive control use. AB 10/30/18

18.6.3.2.1 Quality Control

A Green Rack (see 18.8.3.1) is run once daily (as needed, on days urine testing is performed) and consists of:

a. The negative control, made up of certified blank urine.
b. A urine positive control, UTAK 5, is reconstituted with 5 mL DI H_2O and must be used within 25 days of reconstitution. This serves as the positive urine control for barbiturates, benzodiazepines, cocaine metabolite and opiates.

18.6.3.2.2 Within-batch Quality Controls

a. At least one negative control (certified negative urine) is tested at the start of every batch. Note that if the green QC rack is run concurrently with the test batch, this serves as the negative at the start of the batch.
b. At least one urine positive control is tested with every batch. This positive control is prepared in-house on the day of analysis and run as a sample test (see 18.8.3.2, use Profile 1) at the end of each urine batch.
c. This positive control is prepared by adding 20 µL of the blood EMIT working control standard to 0.25 mL blank urine in a 12 x 75mm tube. Cap the tube and vortex mix. Transfer the contents of the tube to a sample cup.

NOTE: If a batch contains more than 20 unknown samples, an additional negative control is created for each 10 samples to bring the total percentage on controls to 10% of the batch. Any

additional negative controls are to be spaced as evenly as possible throughout the test batch.

18.7 SAMPLE PREPARATION (Blood, Vitreous, or Tissue Homogenate)

18.7.1 Blood, Vitreous, or Tissue Homogenate

NOTE: Serum or plasma will be run with contemporary blood calibrators and controls, but do not require sample preparation. Skip to step 18.7.1.11 for unextracted serum or plasma samples. Serum or plasma samples may be extracted, as determined by available sample volume.

18.7.1.1 Label a clean 16 x 125mm tube for each member of the test batch. (i.e. calibrators, controls, or case samples).

18.7.1.2 Add 1 mL of certified blank whole blood into each of the two calibrator tubes (low and high), the matrix blank, and the positive and negative control(s).

18.7.1.3 Using the working standard, spike the low and high calibrators as follows: Add 20µL of working standard to the low calibrator tube and 40µL to the high calibrator tube.

18.7.1.4 Using the working control standard, spike the low and high positive controls as follows: Add 10µL of working control standard to the low positive control tube and 20µL to the high positive control tube.

18.7.1.5 Sample 1 mL of each case sample into its respective tube.

18.7.1.6 To each tube, add 1mL of methanol, followed immediately by 3 mL of acetonitrile. Vortex mix approximately 30 seconds.

18.7.1.7 Centrifuge the tubes for 5 minutes at 2000rpm to achieve separation.

18.7.1.8 Decant the supernatant into a conical centrifuge tube, and evaporate under air at 50°C to approximately 100µL.

18.7.1.9 Remove the tubes from the evaporator and add 350µL of working blood EMIT buffer and vortex mix.

18.7.1.10 Centrifuge the tubes for 5 minutes at 2000rpm.

18.7.1.11 Transfer the clear supernatant to labeled conical sample cups for analysis on the Olympus AU400e. See section 18.8 INSTRUMENTAL PARAMETERS for guidance.

18.7.2 Urine

18.7.2.1 Urine samples require no sample preparation. A few drops (8-10) of sample are transferred into labeled conical sample cups for analysis on the Olympus AU400e (see 18.8 INSTRUMENTAL PARAMETERS).

18.8 INSTRUMENTAL PARAMETERS

18.8.1 INSTRUMENT MAINTENANCE

Daily, weekly, monthly, 3-month, and 6-month maintenance is required to keep the AU400e in working order. Refer to the Olympus AU400e Maintenance Manual for instructions on routine maintenance as well as troubleshooting any issues that may arise. Maintenance records are filed in the instrument maintenance/QC binder.

18.8.2 INSTRUMENT CALIBRATION

18.8.2.1 From the main computer screen, under USER, select "Start Condition/New Data Index". Change the data index to reflect the current time and set the operator name.

18.8.2.2 Under USER, select "Order Calibration from Racks", select which sample type (serum or urine- select serum if using blood, serum, plasma, vitreous or tissue homogenate). Click on "Start Entry" and enter "1" under "profile" if using the serum panel, "2" for the urine panel. Click "Entry" to make the selection, and then click on "Exit."

18.8.2.3 For urine calibration, use a blue sample rack with DI H_2O in position 10. Fill each labeled position in a yellow sample rack with the appropriate calibrator.

NOTE: The urine calibration is performed weekly, or as needed, with calibration data filed in the instrument maintenance/QC binder.

18.8.2.4 For blood (and other associated matrices), use a blue sample rack, with the supernatant from the extracted matrix blank in position 1. Fill position 1 of the red-striped yellow sample rack with the supernatant from the 20μL low calibrator, and position 2 with the 40μL high calibrator.

NOTE: Blood (and other associated matrices) calibration is performed with each batch containing those matrices.

18.8.3 ORDERING CONTROL SAMPLES

NOTE: Ensure that step 18.8.2.1 (setting the operator name and data index) is performed before ordering any quality controls or sample tests.

18.8.3.1 To order urine controls, select "Order QC from Green Rack" under USER. Select urine for the sample type. Fill the labeled sections of a green sample rack with the appropriate quality controls.

18.8.3.2 The negative(s), low, and high control for blood and other associated matrices are ordered as samples. See section 18.8.4 ORDERING SAMPLE TESTS.

18.8.4 ORDERING SAMPLE TESTS

18.8.4.1 Under USER, choose "Select Report Format". Select either the urine report or blood report appropriately.

18.8.4.2 Under USER, select “Order Sample Tests”. Set the sample type appropriately.

18.8.4.3 Click on “Start Entry” at the bottom of the screen, and enter the sample ID (for example “Negative Control” or an ST# associated with a case).

18.8.4.4 Click on “Profile” and select “1” for serum and “2” for urine.

18.8.4.5 Click on “Entry” at the bottom of the screen to accept the selections. Continue as above until all sample tests have been ordered.

18.8.4.6 Samples are placed in labeled conical sample cups in gray sample racks for urine, and in red-striped gray racks for blood and other associated matrices. Ensure that the position of each sample cup matches the position ordered as above in 18.8.4.3.

18.8.4.7 Once all calibration, quality control samples, and case samples have been ordered, and the racks have been placed in the rack loading area of the AU400e, the green “PLAY” arrow is pressed at the top of the screen to start the analysis.

18.9 CRITERIA FOR BATCH ACCEPTANCE

If the analysis of the batch meets the criteria listed below, the results for the specimens are accepted.

18.9.1 Controls

18.9.1.1 Negative control – blood and associated matrices

The negative control must read negative for all analytes. If the negative control is positive for any analyte (response of >100) all unknowns must be reanalyzed for that analyte.

18.9.1.2 Negative control – urine

The negative control must read negative (<25) for all analytes. If any analyte reads 25 or higher, all unknowns must be reanalyzed for that analyte.

18.9.1.3 Positive controls – blood and associated matrices

a. The low control is prepared to illicit responses slightly above the cutoff concentration (i.e. response just over 100). In the event that one or more analytes does not read >100, that analyte response is multiplied by 0.75, and truncated to a whole number, to determine the new cutoff response. Any unknown samples reading greater than or equal to the new cutoff response shall be confirmed for that analyte. For example, if the opiate control reads 94, the resulting cutoff is 70. All cases with an opiate response ≥70 will be confirmed for opiates.

b. The high control must read positive for all analytes (>100). In addition, the response for the high control should be greater than the response for each analyte in the low control. If an analyte’s

response is negative, all unknowns must be reanalyzed for that analyte.

18.9.1.4 Positive controls – urine

a. The UTAK 5 positive control responses must read >80 for barbiturates, benzodiazepines, cocaine metabolite and opiates.

NOTE: The UTAK 5, control described above is positioned in the green sample rack (designated as a quality control sample).

b. Within-batch positive quality controls (spiked using working control standard - see 18.6.3.2.2.c) must read >80 for barbiturates, benzodiazepines, cocaine metabolite and opiates.

c. If any of the above criteria are not met for an analyte, all unknowns must be reanalyzed for that analyte.

18.10 CRITERIA FOR CASE SAMPLE ACCEPTANCE

If the criteria for batch acceptance have been satisfied, the results of individual case samples are deemed suitable for reporting if the following criteria are met.

18.10.1 If the analyte response printed on the report is >100, (or greater than or equal to the new cutoff as described in 18.9.2.3.a), it may be reported as presumptive positive.

18.10.2 The entire batch, including the Excel worklist, case samples, quality control, and calibration data (for blood and other associated matrices only), is submitted for peer review.

18.10.3 The peer review process includes verification that the calibration and all quality controls are acceptable (or that positive low blood control responses <100 are appropriately documented and/or new cutoff values are determined), and a report is included for all samples listed on the worklist.

18.10.4 For blood and other associated matrices, the original sample report and copies of the calibration, negative controls, low control, high control, and worklist are included in the respective case file. The original calibration data, control results, and worklist are retained in the case file of the first sample in the batch.

For urine, the original sample report and copies of the control results and the worklist are included in each respective case file. The original control results and worklist are retained in the case file of the first sample in the batch.

18.11 REPORTING

18.11.1 Any positive results reported from this assay are indicated as “presumptive positive” in the LIMS panel.

18.11.2 All presumptive positive results that are chosen to be confirmed must be confirmed by a separate method, in the same matrix, or from a different matrix from the same individual; if the confirmation method indicates results are not reportable, the presumptive positive EMIT result(s) is removed from the LIMS panel.

18.12 TRACEABILITY

18.12.1 Traceability of the reference materials to SI units is provided through the certificate of analysis provided by the approved reference material supplier.

LIST OF CHANGES

Revision Date	Description	Page Number
5/30/13	Method approved by the State Toxicologist. See DRA dated 5/28/13. Method released for evidentiary use as of 5/30/13.	All
6/13/14	Added target concentrations to calibrator description table and added table for preparation of working control standard to spike positive controls, in lieu of prepared whole blood controls, to section 18.6.1. Changed opiates cutoff concentration from 20 ng/mL to 50 ng/mL in 18.6.1. Noted calibrator levels (cutoff concentrations) for compound classes in 18.6.2. Changed control description to reflect spiked positive controls in 18.6.3 and 18.7.1.4. Corrected reconstitution expiration for UTAK 0 to 30 days in 18.6.3. Added Keto-Diastix® to materials list in 18.5.2 and amended wording in 18.7.2. Removed 18.11.3, which described presumptive reporting.	3-8
6/1/15	Added "Technique" to title. Minor changes throughout document needed for clarification or grammatical reasons. Changes made to '18.6.3 Controls' to reflect the need for 10% controls with every batch, that controls must bracket casework, and all batches must end with a positive control.	All
6/30/15	Preparation instructions for the within-run spiked urine positive control in 18.6.3.2.2 (c) were modified for use of 0.25 mL blank urine (previously 0.5 mL), to provide an opiates concentration above the target cutoff (calibrator level).	7
10/7/15	Replaced "UTAK 0" in 18.9.1.2 with "negative" to reflect use of either the UTAK 0 negative serum control or blank urine.	10
3/16/16	Edited 18.6.1.4 to indicate use of the working controls standard to prepare positive controls for all matrices. Added wording to 18.9.1.4 to describe acceptance criteria for the within-batch (spiked) positive controls and a note to clarify that the UTAK 5, TCA and acetaminophen/salicylate positive controls (not spiked with working control standard) are positioned in the green quality control sample rack on the instrument. Other minor edits throughout. See DRA dated 1/28/16.	4, 7, 9, 10-11
11/7/16	Removed ", and Enzymatic Assay" from title, as acetaminophen/salicylates testing is no longer performed. Edited 18.2 to specify compounds/classes for urine versus other specimen types. Removed listed reagents in 18.5.1 for acetaminophen/salicylates, TCA, methadone and PCP and preparation instructions for acetaminophen/salicylates and TCA reagent kits. Removed PCP, methadone and nortriptyline from 18.6.1.2 list of stock standards and from 18.6.1.3 and 18.6.1.4 for preparation of working standard and working control standard. Updated 18.6.2.2 and 18.6.3.2 to reflect that urine calibration and QC check are only performed as needed and to remove acetaminophen/salicylates and TCA references. Removed description of ketones/glucose testing from 18.7.2 and updated 18.9.1.4 to remove acetaminophen/salicylates, TCA, methadone and PCP references and removed NOTE in 18.10.1 for acetaminophen/salicylates criteria. Removed reporting description for ketones/glucose testing in 18.11. Other minor edits throughout.	All