Kaiser Oakland Chemistry Competency Quiz 2023

**Beckman Coulter Access 2**

1. BNP is affected by room temperature changes, what must be done if the temperature varies by ±4°C at assay calibration? (1)
2. No steps required, patient testing not affected.
3. Wait for the temperature to return to calibrated range
4. Recalibrate BNP at new room temperature
5. BNP assay is not affected by temperature changes.
6. What is the stability of CK-MB specimens at room temperature? (1)
7. 4 hrs.
8. 8 hrs.
9. 16 hrs.
10. 24 hrs.
11. How should first time high ED Troponins be handled? (1)
12. Repeat test to confirm results before verifying
13. Report result, no additional steps required.
14. Call to ED physician. Release result and repeat test on the other analyzer. ECR if required.
15. Call to ED physician using critical template. Release result and repeat test on the other analyzer. ECR if required.
16. Access 2 gives a auto-diluted βHCG result of >125,000 IU/mL. What is the appropriate action? (1)
	1. Dilute sample 1:2
	2. Dilute sample 1:1000
	3. Report original result of >125,000 in RILIS using free texting
	4. None of the above
17. If you are reloading a partially used reagent pack, it must be returned to the same Access2 from which it was removed. If a partially used reagent pack is loaded on a different Access2, it will be inventoried as a full pack and inaccurate results may occur. (1)
18. False
19. True

**Beckman Coulter AU 680 / AU 480**

1. The frequency of Quality Controls on AU680 are as follows: (1)
2. Most tests, two levels of QC every 24 hours
3. Na, K, Cl, Creatinine, two levels of QC every 8 hours
4. QC must be run with each new reagent bottle (even if same lot#)
5. After every calibration
6. After each shipment of the same lot#
7. A, B, D and E only
8. All of the above
9. A patient specimen result has an “F” flag next to it, even after auto-repeating. What should the CLS/MLT do? (1)
10. Determine if the test can be manually diluted. If it can, the CLS/MLT should follow the manual dilution protocol (using the correct diluent) to manually dilute the specimen. If it cannot be manually diluted, the CLS/MLT should follow the analyte procedure to determine how to verify it.
11. Verify the result with the “F” flag because it repeated.
12. Place the specimen on the backup analyzer to repeat.
13. All of the above
14. None of the above.
15. What steps must be performed if fresh reagent and/or calibration corrects a QC situation? (1)
16. No further steps required, patient testing may resume
17. Repeat patient testing since last acceptable QC run for that analyte and fill out a QC investigation form
18. Fill out a QC investigation form only
19. Hold testing until supervisor reviews work
20. When loading methotrexate reagents onto the AU680 instrument, it is appropriate to place the reagent in any open slot. (1)
21. True, reagent check will find it
22. False, must be in position R1 #60 and R2 #48
23. A 1-2s rule violation for TBil level 2 control was observed. Troubleshooting involved opening a new bottle of QC. The new QC result produced another 1-2S rule violation (2-2S). A new bottle of reagent was opened and used to recalibrate TBil. The problem was resolved. What is the next course of action to take? (1)
24. Patient lookback must be performed to assess patient results from the last acceptable QC.
25. Patient lookback should not be performed because it is only necessary when QC issue is not resolved
26. Patient lookback must be performed because the problem was corrected by reagent change.
27. Patient lookback must be performed to ensure accuracy of patient results previously reported.
28. A, C & D
29. C & D
30. The Liquichek CRP QC lot has expired. Your absent-minded supervisor, Albus Dumbledore CLS, did not establish the new range for the new lot before he left for vacation to the cave islands (thus, he is unreachable). How would you establish the new range? Please choose the best answer (1)
	1. Run the new lot 20 times offline as patients, calculate the mean. Go to [www.qcnet.com](http://www.qcnet.com) > select My eInserts > from the product drop down, select Liquidcheck Elevated CRP Control (254); from the Lot dropdown, select the new lot number > Expand C-Reactive Protein list by clicking on +, select Beckman Coulter AU systems – mg/dL, click view & print insert. Open the file to reveal the manufacturer’s range. Go to the AU680, log out, and log in as admin (username and password behind the keyboard tray) > select User Menu > select QC parameter > Select QC Specific > Select Preset tab> From the dropdown, select CRPN >Select Edit and enter the new mean without changing the SD while making sure that the range (-/+2SD) falls within the manufacturer’s range. Notify the supervisor when he returns.
	2. Reuse the old lot ranges since the ranges should not change that much.
	3. Disable the test and send it to another Kaiser facility to run the specimens, prolonging TAT.
	4. Request/offer MD to change the test to ESR since both test for inflammation.
31. For fentanyl, samples with high turbidity should be centrifuged before analysis. True or False

 **MEDTOXScan**

1. Sample collection and preparation for Urine U DAP L testing: (1)
	1. The urine sample should be collected in a clean, dry container
	2. No preservatives should be added
	3. Urine may be tested immediately following collection
	4. Urine may be frozen at -20ᵒC or colder for storage
	5. Urine can be refrigerated at 2ᵒC to 8ᵒC for no more than two days
	6. All of the above
	7. ABC only
2. A sample was pipetted on a MedTox cassette by Ron Weasley. 25 minutes later, Hermione Granger discovered the cassette was sitting on the table (it was never placed in the Med Tox analyzer). Which of the following is correct? (1)
	1. It is okay for the cassette to sit out for 15 minutes prior to analysis. Place cassette in MedTox analyzer and wait for the results.
	2. Throw away the MedTox cassette. Obtain the patient sample and dispense onto a NEW MedTox cassette. The cassette should be placed in the MedTox analyzer immediately for analysis.
	3. Observe the MedTox cassette. If the sample has traveled down each lane, it can be inserted into the MedTox analyzer. When the results print, they can be verified.
	4. None of the above.
3. How often are external liquid QC performed on the MedTox device: (1)
	1. Daily
	2. Weekly
	3. Monthly
	4. Quarterly
4. During correlation, what causes a sample to read “positive” initially and “negative” when rerun or vice versa? Choose the correct answer(s): (1)
	1. Sample not mixed well
	2. Result is close to the threshold of the test
	3. Sample is not urine
	4. Sample is contaminated with blood

**Radiometer ABL 800 Flex Series**

1. Blood gas storage and handling: (1)
2. Specimens must be analyzed as soon as possible to minimize metabolic changes especially in the pO2 analysis.
3. If a sample cannot be analyzed within 30 minutes after collection in plastic syringe, the sample must be recollected.
4. If there is no order, still analyze the specimen and use the MR no. and name of the patient as identifier then call the RN or MD to order or release the order from Health Connect.
5. Samples must be properly mixed before analysis
6. Samples with bubbles must be recollected
7. All of the above
8. None of the above
9. The ABL analyzer status has a yellow light. The CLS/MLT should: (1)
10. Ignore it
11. Investigate why it is yellow and address the problem.
12. Wait until it is red to investigate the problem.
13. None of the above
14. You notice that the yellow light on ABL 800 FLEX has indicated that the cleaning solution on the should be replaced. What would be your actions? (1)
15. Ignore the observation. Let the next shift deal with it when the light becomes red.
16. Report the observation to the section or shift supervisor, who will determine what the next course of action will be.
17. Obtain a fresh bottle of cleaning solution from the chemistry refrigerator. Remove the foil from the DosiCapZip and unscrew it. Turn the DosiCapZip upside down and screw it onto the container. Invert the container at least 20 times to dissolve the additive. Place the container horizontally so that solution may enter the DosiCapZip and leave it for 3 minutes. Invert the container again at least 20 times. Unscrew the lid from the new solution container. Remove the used container by holding it on the sides and pulling. Scan the barcode of the new solution, using the barcode reader. Place the new solution container in position and push it firmly onto the connector as far as possible. Press Restart to restart the analyzer.
18. Do nothing because it is not red yet.
19. List the onscreen steps to perform a protein removal: (1)

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**Osmopro**

1. Which of the following tubes is the acceptable tube additive for serum osmo?
	1. EDTA
	2. Lithium Heparin
	3. Sodium Heparin
	4. No additive or SST
2. Fill in the blank with the acceptable result

Results: 290, 294, 295:

 Report **\_\_\_\_\_\_\_\_\_**

 Results: 294, 290, 295:

 Report **\_\_\_\_\_\_\_\_\_**

 Results: 600, 605, 608:

 Report **\_\_\_\_\_\_\_\_\_**

 Results: 605, 600, 608:

 Report **\_\_\_\_\_\_\_\_\_**

 Results: 290, 294, 298

 Report **\_\_\_\_\_\_\_\_\_**

 Results: 600, 605, 609

 Report **\_\_\_\_\_\_\_\_\_**

1. If humidity drops below 30%. What would you do?
2. Since the test is not a STAT test, report to engineering and wait for humidity adjustment.
3. Send Specimen to Richmond for testing
4. It’s ok to run one or two specimens since humidity monitoring is only required to prevent evaporation of the specimen.
5. Run on the Osmo3320
6. Suggest the MD to order U Na, U K instead.
7. Which of the following do you perform as a daily maintenance
8. Clean Probe
9. Clean Cooling well
10. Clean Exhaust Fan
11. Clean Plunger
12. Clean instrument exterior
13. When do you perform a calibration?
14. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
15. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
16. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**RILIS**

1. Draw a line to match the following (3)

|  |  |
| --- | --- |
|  | ORV (Order Result Viewer) – To check the tests ordered and status in a given time frame |
|  | ARE (Accession Result Entry) – Verifying Results |
|  | Pending Inquiry – To Keep track of TAT  |
|  | Specimen Log-in – To change the status of specimen to In-Lab  |
|  | DOE (Department Order Entry) – To order and reorder tests and create new encounters |
|  | Label Reprint – To print extra labels |

1. A new CLS, Draco Malfoy, loaded the following specimen into the AU680 but the test was not performed as indicated on the printout. Why is that? (1)



**Chlorochek (only complete when applicable)**

1. The minimum age for testing is \_\_\_\_\_\_\_\_\_\_\_ hours and the minimum weight is \_\_\_\_\_\_\_ kg.
2. Can insufficient samples be pooled for analysis?
3. Sweat testing must be available at least \_\_\_\_\_ days/week. Wait time for scheduling routine test should be \_\_\_\_\_\_\_.
4. If there is significant delay between collection and analysis, what is the appropriate storage conditions?
5. Fill in the appropriate reference values for sweat chloride:
6. \_\_\_\_\_\_\_\_ mmol/L: CF unlikely
7. \_\_\_\_\_\_\_\_ mmol/L: intermediate
8. \_\_\_\_\_\_\_\_ mmol/L: indicative of CF

**The CLS is competent to perform all tests in Chemistry? Yes No**

**Passing criteria: 80% \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pass Fail**

**Reviewed by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**If No, remedial action recommended \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Remedial action completed \_\_\_\_\_\_\_\_\_\_ Trainer\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_**