## WHAT IS A DELTA CHECK?

Delta check is a “look-back” at previously released results for a patient. The time period and limits are built into the delta check calculation. This helps us recognize when a result or set of results are inconsistent with physiology for that patient. The “delta” is the difference in the results (previous vs current).

## WHAT ARE THE DELTA CHECK RULES IN CENTRA LINK?

* Delta Severity is applied if Delta fails and within Day Limit
* Severity >=2 HELD for REV
* Limit is Absolute is YES= +/- absolute #
* Limit is Absolute is No = %



## Let’s look at an example:

1. KPCO RRL deltas in Centra Link are set up so a Calcium result will “look back” 7 days.
2. The Calcium Delta in Centra Link is set at 25%.
3. If the previous Calcium results was 10.8 mg/dL four days ago and is 6.8 mg/dL today, then the delta is 2.7 mg/dL. This will stop for delta check.
4. The previous Calcium result is also at least 1SD lower than the Calcium NORM (3.5-5.0 mg/dL). This will stop for Norm Severity failure.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|   | **Same specimen** |   |   |   |   |   |   |   |   |   |
| **TEST** | **3/12/2018** | **3/9/2018** | **3/5/2018** | **NORMS** | **NS** | **DS** | **Delta of 3/5/2018** | **3/12/18 - 3/9/18 SAME SPECIMEN** | **Issue CR?** |  |
| **ALB** | 3.1 | 2.2 | 4.2 | 3.5-5.0 | -1 | -2 | 0.63 | -1.1 | YES | Delta check |
| **Ca** | 10.8 | 6.9 | 11.7 | 8.5-10.5 | -1 | -2 | 2.925 | -0.9 | YES | **1 SD lower than NORM** |
| **Creat** | 0.6 | 0.2 | 0.6 | 0.6-1.1 | -1 | -2 | 0.6 | 0 | YES |   |
| **Phos** | 2.7 | 1.5 | - | 2.5-4.8 | -1 |   | NA | NA | YES |   |

## What are other Inconsistencies observed in the 3/9/2018 results?

1. If the Ca level is low, the PO4 level is high. They are inversely proportional.
	1. In this example the Ca and Phos (PO4) are both low. *This is unusual.*
2. Is a Creatinine of 0.2 physiologically reasonable? *This is extremely low.*
3. The low Creatinine gives a GFR of 371.6 mL/min/1.73 m2. Is this reasonable? *No,* *this is unusual.*

## How do I know the results are inconsistent? Use the “Chemistry Cheat Sheet” Book for job aids.

* There are a few rules that can help you. Section “O, Chemistry Theory: Useful correlations to remember when reviewing results”
* Also, the chart, “RESULTING GUIDE: Critical Values and Believable results”

## Useful Correlations to Remember When Reviewing Results:

* Sodium and Chloride usually increase and decrease together
* A low TSH usually corresponds to a high FT3 and/or FT4
* A high TSH usually corresponds to a low FT4
* Extremely lipemic specimens usually have a corresponding high cholesterol
* FSH and LH levels usually parallel each other
* A low Fe usually corresponds to a high TIBC
* BUN and Creatinine usually parallel each other
* Extremely low levels of B12Folate usually correspond to a high MCV
* A high level of ALT *ALWAYS* corresponds to a high TBil
* If the Ca level is low, the PO4 level is high. They are inversely proportional
* If HAV IgM is positive, the HAV Total must be positive