

# Changes to UVMHC Flow Cytometry Testing



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Effective November 16, 2020, the Flow Cytometry Laboratory will begin transitioning to a new, single-platform testing. The first phase of this transition involves lymphocyte subset analysis, specifically, T-Cell Subsets (LAB2318, Legacy code IP) and T-, B-, NK-Cell Subsets (LAB343, Legacy code IMM). While the ordering process will remain the same, there will be changes to the test names, reporting, specimen stability, and acceptable container types. A brief summary is provided below, with full details in the table that follows.

- Absolute CD3 (LAB2326, Legacy code TOTCD3) will be discontinued as a stand-alone, orderable test. Requests for this test have been exceedingly rare, and a total CD3 count may be ascertained by ordering T-Cell Subsets.
- Sodium heparin (green top) will no longer be an acceptable container type.
- Absolute counts and percentage values will be reported for all cell subsets, as well as the CD4:CD8 ratio.
- Reference ranges will appear slightly different. These are provided by the manufacturer and have been verified within our laboratory.
- Test names will be updated to reflect the most current nomenclature, replacing the term “Immunodeficiency” with “T-Cell Subsets” or “T-, B-, NK-Cell Subsets”.
- Complete Blood Count with Differential (CBCD) will no longer be required simultaneously as the new, single- platform testing has this capability.

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# Changes to UVMHC Flow Cytometry Testing

| Test Name<br>Epic Code         | T-Cell Subsets<br>LAB2318                                 |                               | T, B, NK Cell Subsets<br>LAB343                           |                               |
|--------------------------------|---|-------------------------------|---|-------------------------------|
|                                | Old   | New                           | Old   | New                           |
| <b>Acceptable Container</b>    | EDTA (Lav Top, Pedi Purple)<br>Sodium Heparin (Green Top) | EDTA (Lav Top, Pedi Purple)   | EDTA (Lav Top, Pedi Purple)<br>Sodium Heparin (Green Top) | EDTA (Lav Top, Pedi Purple)   |
| <b>Collection Requirements</b> | Ambient; Test within 48 hours                             | Ambient; Test within 48 hours | Ambient; Test within 30 hours                             | Ambient; Test within 24 hours |
| <b>Reportable Values</b>       | % CD3   | % CD3                         | % CD3   | % CD3                         |
|                                | % CD4   | % CD4                         | % CD4   | % CD4                         |
|                                | % CD8   | % CD8                         | % CD8   | % CD8                         |
|                                | Absolute CD4  | Absolute CD3                  | % CD19  | % CD19                        |
|                                |   | Absolute CD4                  | % CD16+CD56   | % CD16+CD56                   |
|                                |   | Absolute CD8                  | Absolute CD3  | Absolute CD3                  |
|                                |   | 4/8 Ratio                     | Absolute CD4  | Absolute CD4                  |
|                                |   |                               | Absolute CD8  | Absolute CD8                  |
|                                |   |                               | Absolute CD19   | Absolute CD19                 |
|                                |   |                               | Absolute CD16+CD56  | Absolute CD16+CD56            |
|                                |   |                               |   | 4/8 Ratio                     |
| <b>Adult Reference Ranges:</b> |   |                               |   |                               |
| CD3 (%)                        | 62 - 87   | 56 - 84                       | 62 - 87   | 56 - 84                       |
| CD4 (%)                        | 35 - 63   | 31 - 64                       | 35 - 63   | 31 - 64                       |
| CD8 (%)                        | 10 - 35   | 9 - 39                        | 10 - 35   | 9 - 39                        |
| CD19 (%)                       | N/A   | N/A                           | 5 - 22  | 5 - 25                        |
| CD16+CD56 (%)                  | N/A   | N/A                           | 5 - 23  | 5 - 31                        |
| Absolute CD3 (cells/uL)        | 548 - 2,118   | 840 - 2,669                   | 548 - 2,118   | 840 - 2,669                   |
| Absolute CD4 (cells/uL)        | 329 - 1,427   | 488 - 1,734                   | 329 - 1,427   | 488 - 1,734                   |
| Absolute CD8 (cells/uL)        | N/A   | 154 - 1,097                   | 66 - 750  | 154 - 1,097                   |
| Absolute CD19 (cells/uL)       | N/A   | N/A                           | 0 - 488   | 73 - 562                      |
| Absolute CD16+CD56 (cells/uL)  | N/A   | N/A                           | 72 - 425  | 108 - 680                     |
| 4/8 Ratio                      | N/A   | ≥ 0.9                         | N/A   | ≥ 0.9                         |

There will be two, additional phases to this transition, one involving our CD19/CD20 Study and Stem Cell testing and the other involving our Leukemia/Lymphoma Panels. More details to follow.

Please reach out to the Medical Director of Flow Cytometry at [Katherine.Devitt@uvmhealth.org](mailto:Katherine.Devitt@uvmhealth.org) with questions or concerns about these changes.

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