Hematologics

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Pioneer in Monitoring Response to Therapy (MRD) using ΔN:™ (Difference from Normal) **Flow Cytometry**

- **Hematologics validated ΔN:™ offers superior sensitivity and specificity. As low as 0.02% detection within a 24-hour turn-around time.**

- **Hematologics ΔN:™ has been adopted by the Children's Oncology Group (COG) for MRD detection in AML replacing morphology as the gold standard**

  Eidenschink Brodersen L, Gerbing RB, Alonzo TA, Pardo L, Alonzo TA, Paine D, et al. "Morphologic remission status is limited compared to ΔN flow cytometry: A Children's Oncology Group AAML0531 report. Blood Advances 2020 Oct; 4(20):5050-5061.

- **ΔN:™ detects phenotypic evolution that can be missed by the widely used Leukemia Associated Immunophenotype (LAIP) approach**

  Zeijlemaker W. et al. "Tumor heterogeneity makes AML a 'moving target' for detection of residual disease." Cytometry B Clin Cytom 2014 Jan; 86(1):3-14.

  Loken M.R. "Residual Disease in AML, a target that can move in more than one direction." Cytometry B Clin Cytom. 2014 Jan; 86(1):15-17.

  Grimwade D. et al. "Defining Minimal Residual Disease in acute myeloid leukemia: which platforms are ready for 'prime time'?" Blood. 2014 Nov 27; 124(23):3345-3355.

  Eidenschink Brodersen L, Gerbing RB, Alonzo TA, Pardo L, Alonzo TA, Paine D, et al. "Morphologic remission status is limited compared to ΔN flow cytometry: A Children's Oncology Group AAML0531 report. Blood Advances 2020 Oct; 4(20):5050-5061.

- **ΔN:™ has been validated in four clinical trials spanning over 15 years and greater than 2,500 patients**

  Loken M.R. et al. "Residual Disease detected by multidimensional flow cytometry signifies high relapse risk in patients with de novo acute myeloid leukemia: a report from the Children's Oncology Group." Blood. 2012 Aug 23; 120(8):1581-1588.

- **ΔN:™ has been validated in Pediatric and Adult Specimens**

  Loken M.R. et al. "Consistent Quantitative Gene Product Expression: #3. Invariance with Age." Cytometry A. 2016 Nov; 89(11):997-1000.

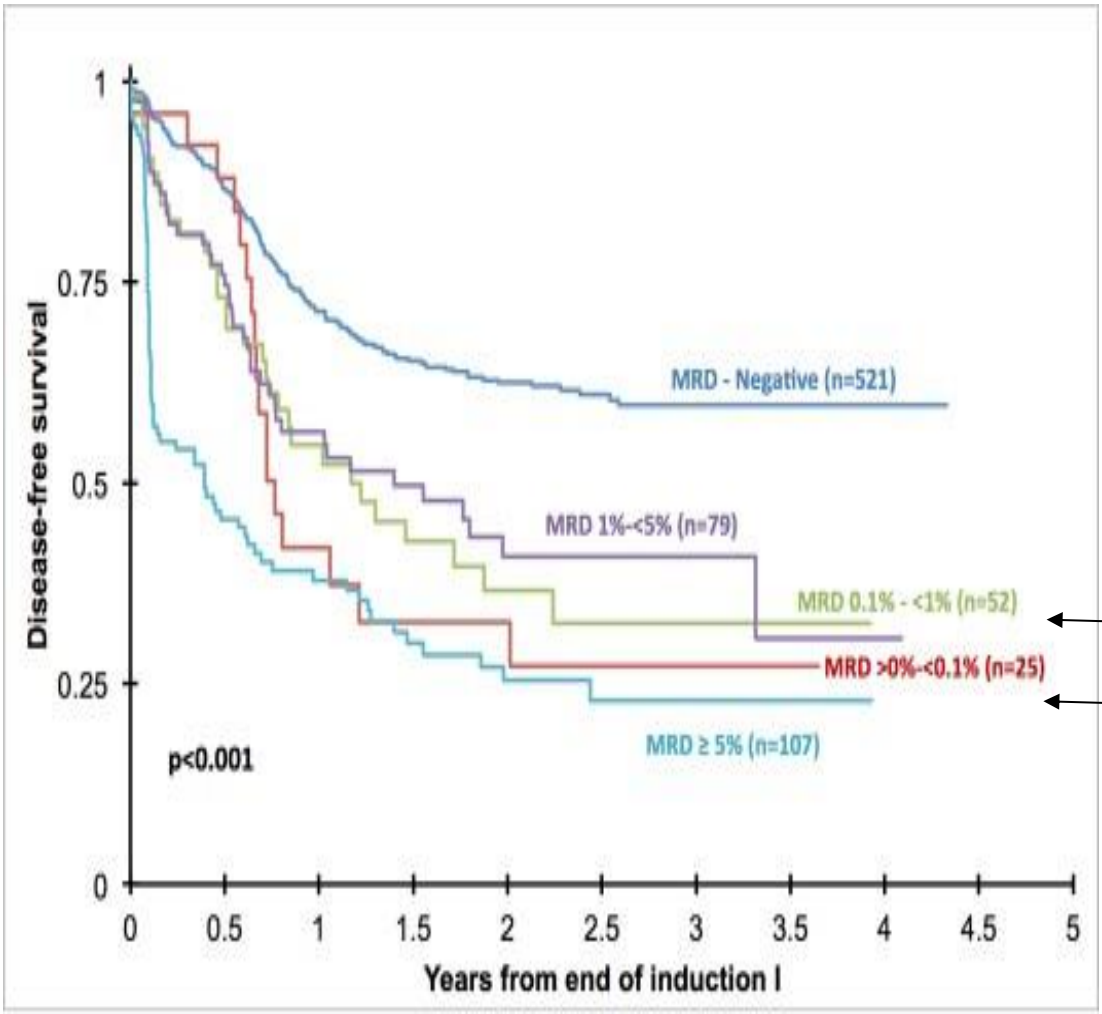
  Loken M.R. et al. "Consistent Quantitative Gene Product Expression: #2. Antigen intensities on bone marrow cells are invariant between individuals." Cytometry A. 2016 Nov; 89(11):987-996.

- **Hematologics is the only commercial laboratory using Clinical Cell Sorting for molecular confirmation of neoplastic populations**

  Zehentner B.K. et al. "Minimal Disease Detection and Confirmation in Hematologic Malignancies: Combining Cell sorting with Clonality Profiling" 2006 Clin Chem 52(3):430-437.

Best for Your Patient - Best for You

The same poor outcome is seen when abnormal blasts are >25% as when residual disease levels are as low as 0.1%. (See Below)



A portion of this work was presented in poster format, at the 54th Annual Meeting of the American Society of Hematology, Atlanta, GA, December 8-11, 2012.

On the other hand, patients may present with >15% normal blasts while recovering from chemotherapy. Only Hematologics can confidently distinguish residual disease leukemia from regenerating marrows by ΔN:™ *Flow Cytometry*.

Hematologics offers a complete test menu including ΔN:™ *Flow Cytometry, *Molecular Genetics**(most complete RT-PCR menu for quantitative monitoring), *Cytogenetics*, FISH**, *Next Generation Sequencing, SNP/CGH microarray, Morphology, Integrated Testing* and *Reporting.***

***COG Certified**