## Hematologics Update Vol. 2

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**Hematologie** has been the recognized worldwide leader in detection of Myelodysplasia (MDS) by our unique use of  $\Delta N$ :<sup>TM</sup> (Difference from Normal) **Flow Cytometry**. This unique validated Flow Cytometry Scoring System (FCSS)<sup>1</sup> idenfies and quantitates the abnormal changes in patients with cytopenias. By counting the number of abnormalities a risk score can be determined:

FCSS 0-1 Abnormalities: Low Risk (Mild/Normal)

FCSS 2-3-Abnormalities: Intermediate Risk (Moderate)

FCSS 4-> Abnormalities: High Risk (Severe) with poor survival even when blasts are

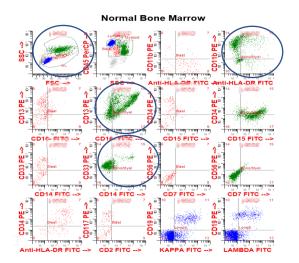
<5% (traditionally considered low risk)

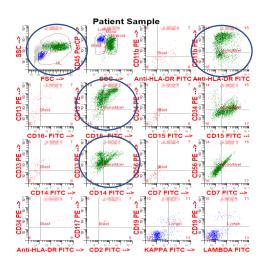
This risk analysis by FCSS can help guide treatment decisions.

## **Case Study – Diagnosis of Suspected MDS**

**Clinical History/Indications:** A bone marrow sample was submitted on a patient with a history of pancytopenia and an upper gastrointestinal bleed.

Analysis/Conclusions:  $\Delta N$ :<sup>M</sup> Flow Cytometry revealed abnormal myeloid antigen expression with no evidence of increased myeloblasts (0.3% myeloid progenitors detected), abnormal lymphoblasts, or lymphoma. The MDS FCSS score was 4, myelomonocytic dyspoiesis in a high-risk category.





Diagnosis: Consistent with refractory anemia with multilineage dysplasia (RCMD) demonstrating a FCSS poor risk score of 4 even in a specimen with only 0.3% myeloid progenitor cells. FCSS is correlated with IPSS and with outcome after hematopoietic stem cell transplantation.<sup>1</sup>

<sup>1</sup>Myeloid and monocytic dyspoiesis as determined by flow cytometric scoring in myelodysplastic syndrome correlates with the IPSS and with outcome after hematopoietic stem cell transplantation. Wells DA, Benesch M, Loken MR, Vallejo C, Myerson D, Leisenring WM, Deeg HJ. Blood. 2003 Jul 1;102(1):394-403.

Hematologies provides a unique approach to testing in the areas of ΔN: Flow Cytometry, Molecular Genetics, Cytogenetics, Deep Sequencing, FISH and Micro-Array. Please visit our website, <a href="www.hematologics.com">www.hematologics.com</a>, for more information or call us at (800)860-0934.