

- Vardiman JW, Thiele J, Arber DA, et al. The 2008 revision of the World Health Organization (WHO) classification of myeloid neoplasms and acute leukemia: rationale and important changes. *Blood* 2009;114:937–951.
- Luzzatto A. Sull anemia grave megaloblastica senza reporto ematologico corrispondente (anemia pseudoaplastica). *Riv Veneta di sc Med Venezia* 1907;47:193–212.
- Hamilton-Paterson JL. Pre-leukemia anemia. *Acta Haematologica* 1949;2:309–316.
- Block M, Jacobson LO, Bethard WF. Preleukemic acute human leukemia. *JAMA* 1953;152:1018–1028.
- Bennett JM, Catovsky D, Daniel MT, et al. Proposals for the classification of the acute leukaemias. French-American-British (FAB) co-operative group. *Br J Haematol* 1976;33:451–458.
- Bennett JM, Catovsky D, Daniel MT, et al. Proposals for the classification of the myelodysplastic syndromes. *Br J Haematol* 1982;51:189–199.
- Greenberg P, Cox C, LeBeau MM, et al. International scoring system for evaluating prognosis in myelodysplastic syndromes. *Blood* 1997;89:2079–2088.
- Bennett JM, Brunning RD, Vardiman JW. Myelodysplastic syndromes: from French-American-British to World Health Organization: a commentary. *Blood* 2002;99:3074–3075.
- Harris NL, Jaffe ES, Diebold J, et al. World Health Organization classification of neoplastic diseases of the hematopoietic and lymphoid tissues: report of the Clinical Advisory Committee meeting—Airlie House, Virginia, November 1997. *J Clin Oncol* 1999;17:3835–3849.
- Malcovati L, Germing U, Kuendigen A, et al. Time-dependent prognostic scoring system for predicting survival and leukemic evolution in myelodysplastic syndromes. *J Clin Oncol* 2007;25:3503–3510.
- Kantarjian H, O'Brien S, Ravandi F, et al. Proposal for a new risk model in myelodysplastic syndrome that accounts for events not considered in the original International Prognostic Scoring System. *Cancer* 2008;113:1351–1361.
- García-Manero G, Shan J, Faderl S, et al. A prognostic score for patients with lower risk myelodysplastic syndrome. *Leukemia* 2008;22:538–543.
- Greenberg PL, Tuechler H, Schanz J, et al. Revised International Prognostic Scoring System for myelodysplastic syndromes. *Blood* 2012;120:2454–2465.
- Ma X, Does M, Raza A, et al. Myelodysplastic syndromes: incidence and survival in the United States. *Cancer* 2007;109:1536–1542.
- Rollison DE, Howlader N, Smith MT, et al. Epidemiology of myelodysplastic syndromes and chronic myeloproliferative disorders in the United States, 2001–2004, using data from the NAACCR and SEER programs. *Blood* 2008;112:45–52.
- Goldberg SL, Chen E, Corral M, et al. Incidence and clinical complications of myelodysplastic syndromes among United States Medicare beneficiaries. *J Clin Oncol* 2010;28:2847–2852.
- Cogle CR, Iannaccone MR, Yu D, et al. High rate of uncaptured myelodysplastic syndrome cases and an improved method of case ascertainment. *Leuk Res* 2014;38:71–75.
- Strom SS, Vélez-Bravo V, Estey EH. Epidemiology of myelodysplastic syndromes. *Semin Hematol* 2008;45:8–13.
- Komrokji R. Myelodysplastic syndromes: a view from where the sun rises and where the sun sets. *Leuk Res* 2006;30:1067–1068.
- Churpek JE, Lorenz R, Nedumgottil S, et al. Proposal for the clinical detection and management of patients and their family members with familial myelodysplastic syndrome/acute leukemia predisposition syndromes. *Leuk Lymphoma* 2013;54:28–35.
- Liew E, Owen C. Familial myelodysplastic syndromes: a review of the literature. *Haematologica* 2011;96:1536–1542.
- Ostergaard P, Simpson MA, Connell FC, et al. Mutations in GATA2 cause primary lymphedema associated with a predisposition to acute myeloid leukemia (Emberger syndrome). *Nat Genet* 2011;43:929–931.
- International Agency for Research on Cancer. *IARC Monographs. Chemical Agents and Related Occupations, Volume F. A Review of Human Carcinogens*. Lyon: IARC; 2012.
- Schnatter AR, Glass DC, Tang G, et al. Myelodysplastic syndrome and benzene exposure among petroleum workers: an international pooled analysis. *J Natl Cancer Inst* 2012;104:1724–1737.
- Tong H, Hu C, Yin X, et al. A meta-analysis of the relationship between cigarette smoking and incidence of myelodysplastic syndromes. *PLoS One* 2013;8:e67537.
- Kristinsson SY, Björkholm M, Hultcrantz M, et al. Chronic immune stimulation might act as a trigger for the development of acute myeloid leukemia or myelodysplastic syndromes. *J Clin Oncol* 2011;29:2897–2903.
- Strom SS, Gu Y, Gruschus SK, et al. Risk factors of myelodysplastic syndromes: a case-control study. *Leukemia* 2005;19:1912–1918.
- Park DJ, Koeffler HP. Therapy-related myelodysplastic syndromes. *Semin Hematol* 1996;33:256–273.
- Smith SM, Le Beau MM, Huo D, et al. Clinical-cytogenetic associations in 306 patients with therapy-related myelodysplasia and myeloid leukemia: the University of Chicago series. *Blood* 2003;102:43–52.
- Bennett JM, Komrokji R, Kouides P. The myelodysplastic syndromes. In: Abelloff MD, Armitage JO, Niederhuber JE, Kastan MB, eds., *Clinical Oncology*. 3rd ed. New York: Churchill Livingstone; 2004: 2849–2881.
- Nardi V, Winkfield KM, Ok CY, et al. Acute myeloid leukemia and myelodysplastic syndromes after radiation therapy are similar to de novo disease and differ from other therapy-related myeloid neoplasms. *J Clin Oncol* 2012;30:2340–2347.
- Valent P, Horny HP, Bennett JM, et al. Definitions and standards in the diagnosis and treatment of the myelodysplastic syndromes: Consensus statements and report from a working conference. *Leuk Res* 2007;31:727–736.
- Malcovati L, Della Porta MG, Cazzola M. Predicting survival and leukemic evolution in patients with myelodysplastic syndrome. *Haematologica* 2006;91:1588–1590.
- Della Porta MG, Malcovati L, Boveri E, et al. Clinical relevance of bone marrow fibrosis and CD34-positive cell clusters in primary myelodysplastic syndromes. *J Clin Oncol* 2009;27:754–762.
- Bennett JM. World Health Organization classification of the acute leukemias and myelodysplastic syndrome. *Int J Hematol* 2000;72:131–133.
- Komrokji R, Bennett J. What is “WHO”? Myelodysplastic syndromes classification. *Clinical Leukemia* 2008;2:20–27. <http://www.ncbi.nlm.nih.gov/pubmed/20425325>.
- Komrokji R, Bennett JM. The myelodysplastic syndromes: classification and prognosis. *Curr Hematol Rep* 2003;2:179–185.
- Vardiman JW, Harris NL, Brunning RD. The World Health Organization (WHO) classification of the myeloid neoplasms. *Blood* 2002;100:2292–2302.
- Brunning RD, Orazi A, Germing U. Myelodysplastic Syndromes/neoplasms overview. In: Swerdlow SH, Campo E, Harris NL, Jaffe ES, eds., *WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues*, 4th ed. Lyon: IARC; 2008: 88–93.
- Komrokji R, Bennett JM. What Is “WHO”? Myelodysplastic Syndrome Classification and Prognosis. ASCO Educational Book: 2009;413–419. <http://www.ncbi.nlm.nih.gov/pubmed/20425325>.
- Orazi A, Brunning RD, Hasserjian RP. Refractory anemia with excess blasts. In: Swerdlow SH, Campo E, Harris NL, Jaffe ES, eds., *WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues*, 4th ed. Lyon: IARC; 2008: 100–101.
- Vardiman JW, Bennett JM, Bain BJ. Myelodysplastic/myeloproliferative neoplasm, unclassifiable. In: Swerdlow SH, Campo E, Harris NL, Jaffe ES, eds., *WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues*, 4th ed. Lyon: IARC; 2008: 85–86.
- Orazi A, Bennett JM, Germing U. Chronic myelomonocytic leukemia. In: Swerdlow SH, Campo E, Harris NL, Jaffe ES, eds., *WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues*, 4th ed. Lyon, IARC; 2008: 76–79.
- Young NS, Calado RT, Scheinberg P. Current concepts in the pathophysiology and treatment of aplastic anemia. *Blood* 2006;108:2509–2519.
- Steenma D. Dysplasia has a differential diagnosis: distinguishing genuine myelodysplastic syndromes (MDS) from mimics, imitators, copycats and impostors. *Curr Hematol Malign Rep* 2012;7:310–320.
- Tsukamoto N, Morita K, Maehara T, et al. Clonality in myelodysplastic syndromes: demonstration of pluripotent stem cell origin using X-linked restriction fragment length polymorphisms. *Br J Haematol* 1993;83:589–594.
- Anastasi J, Feng J, Le Beau MM, et al. Cytogenetic clonality in myelodysplastic syndromes studied with fluorescence in situ hybridization: lineage, response to growth factor therapy, and clone expansion. *Blood* 1993;81:1580–1585.
- Abrahamson G, Boulwood J, Madden J, et al. Clonality of cell populations in refractory anaemia using combined approach of gene loss and X-linked restriction fragment length polymorphism-methylation analyses. *Br J Haematol* 1991;79:550–555.
- Janssen JW, Buschle M, Layton M, et al. Clonal analysis of myelodysplastic syndromes: evidence of multipotent stem cell origin. *Blood* 1989;73:248–254.
- Schanz J, Steidl C, Fonatsch C, et al. Coalesced multicentric analysis of 2,351 patients with myelodysplastic syndromes indicates an underestimation of poor-risk cytogenetics of myelodysplastic syndromes in the international prognostic scoring system. *J Clin Oncol* 2011;29:1963–1970.
- Haase D, Germing U, Schanz J, et al. New insights into the prognostic impact of the karyotype in MDS and correlation with subtypes: evidence from a core dataset of 2124 patients. *Blood* 2007;110:4385–4395.
- Barlow JL, Drynan LF, Hewett DR, et al. A p53-dependent mechanism underlies macrocytic anemia in a mouse model of human 5q- syndrome. *Nat Med* 2010;16:59–66.
- Papaemmanuil E, Gerstung M, Malcovati L, et al. Clinical and biological implications of driver mutations in myelodysplastic syndromes. *Blood* 2013;122:3616–3627.
- Haferlach T, Nagata Y, Grossmann V, et al. Landscape of genetic lesions in 944 patients with myelodysplastic syndromes. *Leukemia* 2014;28:241–247.
- Delhommeau F, Dupont S, Della Valle V, et al. Mutation in TET2 in myeloid cancers. *N Engl J Med* 2009;360:2289–2301.
- Ko M, Huang Y, Jankowska AM, et al. Impaired hydroxylation of 5-methylcytosine in myeloid cancers with mutant TET2. *Nature* 2010;468:839–843.
- Grossmann V, Kohlmann A, Eder C, et al. Analyses of 81 chronic myelomonocytic leukemia (CMML) for EZH2, TET2, ASXL1, CBL, KRAS, NRAS, RUNX1, IDH1, IDH2, and NPM1 revealed mutations in 86.4% of all patients with TET2 and EZH2 being of high prognostic relevance. *ASH Annual Meeting Abstracts* 2010;116:296. <http://www.ncbi.nlm.nih.gov/pubmed/20425325>.

58. Gelsi-Boyer V, Trouplin V, Adelaide J, et al. Mutations of polycomb-associated gene ASXL1 in myelodysplastic syndromes and chronic myelomonocytic leukaemia. *Br J Haematol* 2009;145:788–800.
59. Bejar R, Stevenson K, Abdel-Wahab O, et al. Clinical effect of point mutations in myelodysplastic syndromes. *N Engl J Med* 2011;364:2496–2506.
60. Jankowska AM, Makishima H, Tiu RV, et al. Mutational spectrum analysis of chronic myelomonocytic leukemia includes genes associated with epigenetic regulation: UTX, EZH2, and DNMT3A. *Blood* 2011;118:3932–3941.
61. Abdel-Wahab O, Adli M, LaFave LM, et al. ASXL1 mutations promote myeloid transformation through loss of PRC2-mediated gene repression. *Cancer Cell* 2012;22:180–193.
62. Dey A, Seshasayee D, Noubade R, et al. Loss of the tumor suppressor BAP1 causes myeloid transformation. *Science* 2012;337:1541–1546.
63. Abdel-Wahab O, Gao J, Adli M, et al. Deletion of Asxl1 results in myelodysplasia and severe developmental defects in vivo. *J Exp Med* 2013;210:2641–2659.
64. Li Z, Cai X, Cai CL, et al. Deletion of Tet2 in mice leads to dysregulated hematopoietic stem cells and subsequent development of myeloid malignancies. *Blood* 2011;118:4509–4518.
65. Yoshida K, Sanada M, Shiraiishi Y, et al. Frequent pathway mutations of splicing machinery in myelodysplasia. *Nature* 2011;478:64–69.
66. Wu SJ, Kuo YY, Hou HA, et al. The clinical implication of SRSF2 mutation in patients with myelodysplastic syndrome and its stability during disease evolution. *Blood* 2012;120:3106–3111.
67. Meggendorfer M, Roller A, Haferlach T, et al. SRSF2 mutations in 275 cases with chronic myelomonocytic leukemia (CMML). *Blood* 2012;120:3080–3088.
68. Itzykson R, Kosmider O, Renneville A, et al. Prognostic score including gene mutations in chronic myelomonocytic leukemia. *J Clin Oncol* 2013;31:2428–2436.
69. Papaemmanuil E, Cazzola M, Boulwood J, et al. Somatic SF3B1 mutation in myelodysplasia with ring sideroblasts. *N Engl J Med* 2011;365:1384–1395.
70. Walter MJ, Shen D, Ding L, et al. Clonal architecture of secondary acute myeloid leukemia. *N Engl J Med* 2012;366:1090–1098.
71. Miller JS, Arthur DC, Litz CE, et al. Myelodysplastic syndrome after autologous bone marrow transplantation: an additional late complication of curative cancer therapy. *Blood* 1994;83:3780–3786.
72. Kulasekararaj AG, Al Ali NH, Kordasti SY, et al. Characteristics and outcome of myelodysplastic syndromes (MDS) patients with autoimmune diseases. *Blood* 2013;122:746. <http://www.ncbi.nlm.nih.gov/pubmed/20425325>.
73. Tabata R, Tabata C, Okamoto T, et al. Autoimmune pancreatitis associated with myelodysplastic syndrome. *Int Arch Allergy Immunol* 2010;151:168–172.
74. Zou JX, Rollison DE, Boulware D, et al. Altered naive and memory CD4+ T-cell homeostasis and immunosenescence characterize younger patients with myelodysplastic syndrome. *Leukemia* 2009;23:1288–1296.
75. Epling-Burnette PK, Painter JS, Rollison DE, et al. Prevalence and clinical association of clonal T-cell expansions in myelodysplastic syndrome. *Leukemia* 2007;21:659–667.
76. Yang L, Mailloux A, Rollison DE, et al. Naive T-cells in myelodysplastic syndrome display intrinsic human telomerase reverse transcriptase (hTERT) deficiency. *Leukemia* 2013;27:897–906.
77. Fozza C, Contini S, Galleu A, et al. Patients with myelodysplastic syndromes display several T-cell expansions, which are mostly polyclonal in the CD4(+) subset and oligoclonal in the CD8(+) subset. *Exp Hematol* 2009;37:947–955.
78. Mailloux AW, Sugimori C, Komrokji RS, et al. Expansion of effector memory regulatory T cells represents a novel prognostic factor in lower risk myelodysplastic syndrome. *J Immunol* 2012;189:3198–3208.
79. Wei Y, Dimicoli S, Bueso-Ramos C, et al. Toll-like receptor alterations in myelodysplastic syndrome. *Leukemia* 2013;27:1832–1840.
80. Dimicoli S, Wei Y, Bueso-Ramos C, et al. Overexpression of the toll-like receptor (TLR) signaling adaptor MYD88, but lack of genetic mutation, in myelodysplastic syndromes. *PLoS One* 2013;8:e71120.
81. Chen X, Eksioglu EA, Zhou J, et al. Induction of myelodysplasia by myeloid-derived suppressor cells. *J Clin Invest* 2013;123:4595–4611.
82. Boulwood J, Fidler C, Strickson AJ, et al. Narrowing and genomic annotation of the commonly deleted region of the 5q- syndrome. *Blood* 2002;99:4638–4641.
83. Ebert BL, Pretz J, Bosco J, et al. Identification of RPS14 as a 5q- syndrome gene by RNA interference screen. *Nature* 2008;451:335–339.
84. Wei S, Chen X, McGraw K, et al. Lenalidomide promotes p53 degradation by inhibiting MDM2 auto-ubiquitination in myelodysplastic syndrome with chromosome 5q deletion. *Oncogene* 2013;32:1110–1120.
85. Wei S, Chen X, Rocha K, et al. A critical role for phosphatase haploinsufficiency in the selective suppression of deletion 5q MDS by lenalidomide. *Proc Natl Acad Sci U S A* 2009;106:12974–12979.
86. Rosing JL, Komrokji RS, Margolin EG. Anemia in elderly hospitalized veterans: prevalence, causes, and clinical impact. *ASH Annual Meeting Abstracts* 2005;106:3756. <http://www.ncbi.nlm.nih.gov/pubmed/20425325>.
87. Kantarjian H, Giles F, List A, et al. The incidence and impact of thrombocytopenia in myelodysplastic syndromes. *Cancer* 2007;109:1705–1714.
88. Raman BK, Van Slyck EJ, Riddle J, et al. Platelet function and structure in myeloproliferative disease, myelodysplastic syndrome, and secondary thrombocytosis. *Am J Clin Pathol* 1989;91:647–655.
89. Boogaerts MA, Nelissen V, Roelant C, et al. Blood neutrophil function in primary myelodysplastic syndromes. *Br J Haematol* 1983;55:217–227.
90. Tsukada H, Chou T, Ishizuka Y, et al. Disseminated Mycobacterium avium-intracellulare infection in a patient with myelodysplastic syndrome (refractory anemia). *Am J Hematol* 1994;45:325–329.
91. Ong KR, Sordillo E, Frankel E. Unusual case of *Aeromonas hydrophila* endocarditis. *J Clin Microbiol* 1991;29:1056–1057.
92. Pomeroy C, Oken MM, Rydell RE, et al. Infection in the myelodysplastic syndromes. *Am J Med* 1991;90:338–344.
93. Al Ustwani O, Ford LA, Sait SJ, et al. Myelodysplastic syndromes and autoimmune diseases—case series and review of literature. *Leuk Res* 2013;37:894–899.
94. Fain O, Braun T, Stremmann J, et al. [Systemic and autoimmune manifestations in myelodysplastic syndromes]. *Rev Med Interne* 2011;32:552–559.
95. Enright H, Miller W. Autoimmune phenomena in patients with myelodysplastic syndromes. *Leuk Lymphoma* 1997;24:483–489.
96. Sanz C, Cervantes F, Pereira A, et al. [Coombs-positive autoimmune hemolytic anemia as a striking initial manifestation of myelodysplastic syndromes]. *Sangre (Barc)* 1990;35:329.
97. Parikh SA, Tefferi A. Chronic myelomonocytic leukemia: 2013 update on diagnosis, risk stratification, and management. *Am J Hematol* 2013;88:967–974.
98. Malcovati L, Della Porta MG, Pietra D, et al. Molecular and clinical features of refractory anemia with ringed sideroblasts associated with marked thrombocytosis. *Blood* 2009;114:3538–3545.
99. Mishra A, Corrales-Yepez M, Ali NA, et al. Validation of the revised International Prognostic Scoring System in treated patients with myelodysplastic syndromes. *Am J Hematol* 2013;88:566–570.
100. Sekeres MA, Elson P, Tiu RV, et al. Validating the lower-risk MD Anderson Prognostic Scoring System (LR-PSS) and the Revised International Prognostic Scoring System (IPSS-R) for patients with myelodysplastic syndromes. *ASH Annual Meeting Abstracts* 2011;118:(abstract 1720).
101. Komrokji RS, Corrales-Yepez M, Al Ali N, et al. Validation of the MD Anderson Prognostic Risk Model for patients with myelodysplastic syndrome. *Cancer* 2012;118(10):2659–2664.
102. Garcia-Manero G, Shan J, Faderl S, et al. A prognostic score for patients with lower risk myelodysplastic syndrome. *Leukemia* 2007;22:538–543.
103. Bejar R, Stevenson K, Abdel-Wahab O, et al. Clinical effect of point mutations in myelodysplastic syndromes. *N Engl J Med* 2011;364(26):2496–2506.
104. Bejar R, Stevenson KE, Caughey BA, et al. Validation of a prognostic model and the impact of mutations in patients with lower-risk myelodysplastic syndromes. *J Clin Oncol* 2012;30(27):3376–3382.
105. Dayyani F, Conley AP, Strom SS, et al. Cause of death in patients with lower-risk myelodysplastic syndrome. *Cancer* 2010;116:2174–2179.
106. Malcovati L, Porta MG, Pascutto C, et al. Prognostic factors and life expectancy in myelodysplastic syndromes classified according to WHO criteria: a basis for clinical decision making. *J Clin Oncol* 2005;23:7594–7603.
107. Sanz G, Nomdedeu B, Such E, et al. Independent impact of iron overload and transfusion dependency on survival and leukemic evolution in patients with myelodysplastic syndrome. *ASH Annual Meeting Abstracts* 2008;112:(abstract 640).
108. Naqvi K, Garcia-Manero G, Sardesai S, et al. Association of comorbidities with overall survival in myelodysplastic syndrome: development of a prognostic model. *J Clin Oncol* 2011;29(16):2240–2246.
109. Della Porta MG, Malcovati L, Strupp C, et al. Risk stratification based on both disease status and extra-hematologic comorbidities in patients with myelodysplastic syndrome. *Haematologica* 2011;96(5):441–449.
110. Bennett JM. Consensus statement on iron overload in myelodysplastic syndromes. *Am J Hematol* 2008;83:858–861.
111. Hellstrom-Lindberg E. Efficacy of erythropoietin in the myelodysplastic syndromes: a meta-analysis of 205 patients from 17 studies. *Br J Haematol* 1995;89:67–71.
112. Jadersten M, Malcovati L, Dybedal I, et al. Erythropoietin and granulocyte-colony stimulating factor treatment associated with improved survival in myelodysplastic syndrome. *J Clin Oncol* 2008;26:3607–3613.
113. Moyo V, Lefebvre P, Duh MS, et al. Erythropoiesis-stimulating agents in the treatment of anemia in myelodysplastic syndromes: a meta-analysis. *Ann Hematol* 2008;87:527–536.
114. Hellstrom-Lindberg E, Gulbrandsen N, Lindberg G, et al. A validated decision model for treating the anaemia of myelodysplastic syndromes with erythropoietin + granulocyte colony-stimulating factor: significant effects on quality of life. *Br J Haematol* 2003;120:1037–1046.
115. List A, Dewald G, Bennett J, et al. Lenalidomide in the myelodysplastic syndrome with chromosome 5q deletion. *N Engl J Med* 2006;355:1456–1465.
116. List A, Dewald G, Bennett J, et al. Cytogenetic response to lenalidomide is associated with improved survival in patients with chromosome 5q deletion. *Leuk Res* 2007;31:s38.
117. Gohring G, Giagounidis A, Busche G, et al. Patients with del(5q) MDS who fail to achieve sustained erythroid or cytogenetic remission after treatment with lenalidomide have an increased risk for clonal evolution and AML progression. *Ann Hematol* 2010;89(4):365–374.
118. Kulasekararaj AG, Smith AE, Mian SA, et al. TP53 mutations in myelodysplastic syndrome are strongly correlated with aberrations of chromosome 5, and correlate with adverse prognosis. *Br J Haematol* 2013;160:660–672.
119. Jadersten M, Saft L, Smith A, et al. TP53 mutations in low-risk myelodysplastic syndromes with del(5q) predict disease progression. *J Clin Oncol* 2011;29:1971–1979.

120. Bally C, Ades L, Renneville A, et al. Incidence and prognostic value of TP53 mutations in lower risk MDS with Del 5q. *ASH Annual Meeting Abstracts* 2012;120:(abstract 2809).
121. Sekeres MA, Maciejewski JP, Giagounidis AA, et al. Relationship of treatment-related cytopenias and response to lenalidomide in patients with lower-risk myelodysplastic syndromes. *J Clin Oncol* 2008;26:5943–5949.
122. Giagounidis A, Fenaux P, Mufti GJ, et al. Practical recommendations on the use of lenalidomide in the management of myelodysplastic syndromes. *Ann Hematol* 2008;87:345–352.
123. Komrokji R, Giagounidis A. Lenalidomide therapy in MDS. In: Steensma DP, ed., *Myelodysplastic Syndromes: Pathobiology and Clinical Management*, 2nd ed. London, Informa Health Care; 2008: 457–483.
124. Chen N, Lau H, Kong L, et al. Pharmacokinetics of lenalidomide in subjects with various degrees of renal impairment and in subjects on hemodialysis. *J Clin Pharmacol* 2007;47:1466–1475.
125. Fenaux P, Giagounidis A, Selleslag D, et al. A randomized phase 3 study of lenalidomide versus placebo in RBC transfusion-dependent patients with low-/intermediate-1-risk myelodysplastic syndromes with del5q. *Blood* 2011;118:3765–3776.
126. Raza A, Reeves JA, Feldman EJ, et al. Phase 2 study of lenalidomide in transfusion-dependent, low-risk, and intermediate-1 risk myelodysplastic syndromes with karyotypes other than deletion 5q. *Blood* 2008;111:86–93.
127. Komrokji RS, Lancet JE, Swern AS, et al. Combined treatment with lenalidomide and epoetin alfa in lower-risk patients with myelodysplastic syndrome. *Blood* 2012;120(17):3419–3424.
128. Toma A, Chevret S, Kosmider O, et al. A randomized study of lenalidomide (LEN) with or without EPO in RBC transfusion dependent (TD) IPSS low and int-1 (lower risk) myelodysplastic syndromes (MDS) without del 5q resistant to EPO. *ASCO Meeting Abstracts* 2013;31:(abstract 7002).
129. List AF, Estes M, Williams A, et al. Lenalidomide (CC-5013; revlimid(R)) promotes erythropoiesis in myelodysplastic syndromes (MDS) by CD45 protein tyrosine phosphatase (PTP) inhibition. *ASH Annual Meeting Abstracts* 2006;108:(abstract 1360).
130. Burcheri S, Prebet T, Beyne-Rauzy O, et al. Lenalidomide (LEN) in INT 2 and high risk MDS with DEL 5q. Interim results of a phase II trial by the GFM. *ASH Annual Meeting Abstracts* 2007;110:(abstract 820).
131. Mollgard L, Nilsson L, Kjeldsen L, et al. Lenalidomide in high-risk myelodysplastic syndrome and acute myeloid leukemia with chromosome 5 abnormalities. *ASH Annual Meeting Abstracts* 2009;114:(abstract 115).
132. Vij R, Nelson A, Uy GL, et al. A phase II study of high dose lenalidomide as initial therapy for acute myeloid leukemia in patients >60 years old. *ASH Annual Meeting Abstracts* 2009;114:(abstract 842).
133. Sekeres MA, Tiu RV, Komrokji R, et al. Phase 2 study of the lenalidomide and azacitidine combination in patients with higher-risk myelodysplastic syndromes. *Blood* 2012;120:4945–4951.
134. Huls G, Mulder AB, Rosati S, et al. Efficacy of single-agent lenalidomide in patients with JAK2 (V617F) mutated refractory anemia with ring sideroblasts and thrombocytosis. *Blood* 2010;116:180–182.
135. Silverman LR, Demakos EP, Peterson BL, et al. Randomized controlled trial of azacitidine in patients with the myelodysplastic syndrome: a study of the cancer and leukemia group B. *J Clin Oncol* 2002;20:2429–2440.
136. Fenaux P, Mufti GJ, Hellstrom-Lindberg E, et al. Efficacy of azacitidine compared with that of conventional care regimens in the treatment of higher-risk myelodysplastic syndromes: a randomised, open-label, phase III study. *Lancet Oncol* 2009;10:223–232.
137. List AF, Fenaux P, Mufti GJ, et al. Effect of azacitidine (AZA) on overall survival in higher-risk myelodysplastic syndromes (MDS) without complete remission. *ASCO Meeting Abstracts* 2008;26:(abstract 7006).
138. Gore S, Fenaux P, Santini V, et al. Time-dependent decision analysis: Stable disease in azacitidine (AZA)-treated patients (pts) with higher-risk MDS. *ASCO Meeting Abstracts* 2010;28:(abstract 6503).
139. Itzykson R, Thepot S, Quesnel B, et al. Prognostic factors for response and overall survival in 282 patients with higher-risk myelodysplastic syndromes treated with azacitidine. *Blood* 2011;117(2):403–411.
140. Itzykson R, Kosmider O, Cluzeau T, et al. Presence of TET2 mutation predicts a higher response rate to azacitidine in MDS and AML post MDS. *ASH Annual Meeting Abstracts* 2010;116:(abstract 439).
141. Lyons RM, Cosgriff TM, Modi SS, et al. Hematologic response to three alternative dosing schedules of azacitidine in patients with myelodysplastic syndromes. *J Clin Oncol* 2009;27:1850–1856.
142. Kantarjian HM, O'Brien S, Shan J, et al. Update of the decitabine experience in higher risk myelodysplastic syndrome and analysis of prognostic factors associated with outcome. *Cancer* 2007;109:265–273.
143. Kantarjian H, Oki Y, Garcia-Manero G, et al. Results of a randomized study of 3 schedules of low-dose decitabine in higher-risk myelodysplastic syndrome and chronic myelomonocytic leukemia. *Blood* 2007;109:52–57.
144. Steensma DP, Baer MR, Slack JL, et al. Multicenter study of decitabine administered daily for 5 days every 4 weeks to adults with myelodysplastic syndromes: the alternative dosing for outpatient treatment (ADOPT) trial. *J Clin Oncol* 2009;27:3842–3848.
145. Lubbert M, Suciu S, Baila L, et al. Low-dose decitabine versus best supportive care in elderly patients with intermediate- or high-risk myelodysplastic syndrome (MDS) ineligible for intensive chemotherapy: final results of the randomized phase III study of the European Organisation for Research and Treatment of Cancer Leukemia Group and the German MDS Study Group. *J Clin Oncol* 2011;29:1987–1996.
146. Jabbour E, Garcia-Manero G, Batty N, et al. Outcome of patients with myelodysplastic syndrome after failure of decitabine therapy. *Cancer* 2010;116:3830–3834.
147. Prebet T, Gore SD, Esterni B, et al. Outcome of high-risk myelodysplastic syndrome after azacitidine treatment failure. *J Clin Oncol* 2011;29:3322–3327.
148. Duong VH, Lin K, Reljic T, et al. Poor outcome of patients with myelodysplastic syndrome after azacitidine treatment failure. *Clin Lymphoma Myeloma Leuk* 2013;13:711–715.
149. Jabbour E, Garcia-Manero G, Xiao L, et al. Outcome Of patients (pts) with low and intermediate-1 risk myelodysplastic syndrome (MDS) after hypomethylating agent (HMA) failure. *Blood* 2013;122:388.
150. Ades L, Sekeres MA, Wolfromm A, et al. Predictive factors of response and survival among chronic myelomonocytic leukemia patients treated with azacitidine. *Leuk Res* 2013;37:609–613.
151. Sloan EM, Wu CO, Greenberg P, et al. Factors affecting response and survival in patients with myelodysplasia treated with immunosuppressive therapy. *J Clin Oncol* 2008;26:2505–2511.
152. Komrokji RS, Mailloux AW, Chen DT, et al. A phase 2 multicenter rabbit anti-thymocyte globulin trial in patients with myelodysplastic syndromes identifying a novel model for response prediction. *Haematologica* 2014;99(7):1176–1183.
153. Sloan EM, Olmes MJ, Shenoy A, et al. Alemtuzumab treatment of intermediate-1 myelodysplasia patients is associated with sustained improvement in blood counts and cytogenetic remissions. *J Clin Oncol* 2010;28(35):5166–5173.
154. Cutler CS, Lee SJ, Greenberg P, et al. A decision analysis of allogeneic bone marrow transplantation for the myelodysplastic syndromes: delayed transplantation for low-risk myelodysplasia is associated with improved outcome. *Blood* 2004;104:579–585.
155. Koreth J, Pidalá J, Perez WS, et al. Role of reduced-intensity conditioning allogeneic hematopoietic stem-cell transplantation in older patients with de novo myelodysplastic syndromes: an international collaborative decision analysis. *J Clin Oncol* 2013;31:2662–2670.
156. Lim Z, Brand R, Martino R, et al. Allogeneic hematopoietic stem-cell transplantation for patients 50 years or older with myelodysplastic syndromes or secondary acute myeloid leukemia. *J Clin Oncol* 2010;28(3):405–411.
157. Damaj G, Duhamel A, Robin M, et al. Impact of azacitidine before allogeneic stem-cell transplantation for myelodysplastic syndromes: a study by the Société Française de Greffe de Moelle et de Thérapie-Cellulaire and the Groupe-Francophone des Myélodysplasies. *J Clin Oncol* 2012;30(36):4533–4540.
158. de Lima M, Giral S, Thall PF, et al. Maintenance therapy with low-dose azacitidine after allogeneic hematopoietic stem cell transplantation for recurrent acute myelogenous leukemia or myelodysplastic syndrome: a dose and schedule finding study. *Cancer* 2010;116:5420–5431.
159. Leitch HA. Improving clinical outcome in patients with myelodysplastic syndrome and iron overload using iron chelation therapy. *Leuk Res* 2007;31:S7–S9.
160. Rose C, Brechignac S, Vassilief D, et al. Does iron chelation therapy improve survival in regularly transfused lower risk MDS patients? A multicenter study by the GFM (Groupe Francophone des Myélodysplasies). *Leuk Res* 2010;34:864–870.
161. List AF, Baer MR, Steensma D, et al. Deferasirox (ICL670; Exjade(R)) reduces serum ferritin (SF) and labile plasma iron (LPI) in patients with myelodysplastic syndromes (MDS). *ASH Annual Meeting Abstracts* 2007;110:(abstract 1470).
162. Gattermann N, Schmid M, Porta MD, et al. Efficacy and safety of deferasirox (Exjade(R)) during 1 year of treatment in transfusion-dependent patients with myelodysplastic syndromes: results from EPIC Trial. *ASH Annual Meeting Abstracts* 2008;112:(abstract 633).
163. Cernak J, Jonasova A, Vondrakova J, et al. Efficacy and safety of administration of oral iron chelator deferiprone in patients with early myelodysplastic syndrome. *Hemoglobin* 2011;35:217–227.
164. Naqvi K, Jabbour E, Bueso-Ramos C, et al. Implications of discrepancy in morphologic diagnosis of myelodysplastic syndrome between referral and tertiary care centers. *Blood* 2011;118:4690–4693.
165. Padron E, Ali NHA, Pekar D, et al. A comparison of prognostic models for chronic myelomonocytic leukemia (CMML) in the era of hypomethylating agents. *ASH Annual Meeting Abstracts* 2012;120:(abstract 1695).
166. Gore SD, Fenaux P, Santini V, et al. A multivariate analysis of the relationship between response and survival among patients with higher-risk myelodysplastic syndromes treated within azacitidine or conventional care regimens in the randomized AZA-001 trial. *Haematologica* 2013;98:1067–1072.
167. Sekeres MA, Gundacker H, Lancet J, et al. A phase 2 study of lenalidomide monotherapy in patients with deletion 5q acute myeloid leukemia: Southwest Oncology Group Study S0605. *Blood* 2011;118(3):523–528.
168. Silverman LR, Verma A, Odchimar-Reissig R, et al. A phase I/II study of vorinostat, an oral histone deacetylase inhibitor, in combination with azacitidine in patients with the myelodysplastic syndrome (MDS) and acute myeloid leukemia (AML). Initial results of the phase I trial: A New York Cancer Consortium. *ASCO Meeting Abstracts* 2008;26:(abstract 7000).

169. Quintas-Cardama A, Kantarjian HM, Ravandi F, et al. Very high rates of clinical and cytogenetic response with the combination of the histone deacetylase inhibitor pracinostat (SB939) and 5-azacitidine in high-risk myelodysplastic syndrome. *ASH Annual Meeting Abstracts* 2012;120:(abstract 3821).
170. Komrokji RS, Apuri S, Al Ali N, et al. Evidence for selective benefit of sequential treatment with azanucleosides in patients with myelodysplastic syndromes (MDS). *ASCO Meeting Abstracts* 2013;31:7113.
171. Raza A, Greenberg PL, Olnes MJ, et al. Final phase I/II results of rigosertib (ON 01910.Na) hematological effects in patients with myelodysplastic syndrome and correlation with overall survival. *ASH Annual Meeting Abstracts* 2013;118:(abstract 3822).
172. Lancet JE, Cortes JE, Hogge DE, et al. Phase 2B randomized study of CPX-351 vs. cytarabine (CYT) + daunorubicin (DNR) (7 + 3 regimen) in newly diagnosed AML patients aged 60-75. *ASH Annual Meeting Abstracts* 2010;116:(abstract 655).
173. Jaglal MV, Duong VH, Bello CM, et al. Cladribine, cytarabine, filgrastim, and mitoxantrone (CLAG-M) compared to standard induction in acute myeloid leukemia from myelodysplastic syndrome after azanucleoside failure. *Leuk Res* 2013;38:443-446.
174. Komrokji R, Corrales-Yopez MG, Al Ali NH, et al. Lenalidomide treatment for lower risk non-deletion 5q myelodysplastic syndromes patients yields higher response rates when used prior to azanucleosides. *Blood* 2013;122:1507.