

Section 30
Myelodysplastic Syndromes (MDS), Chronic Myeloproliferative Disorders (CMD), and
Chronic Myelomonocytic Leukemia (CMML)

This section includes Myelodysplastic Syndromes (MDS), Chronic Myeloproliferative Disorders (CMD), and Chronic Myelomonocytic Leukemia (CMML). In the 3rd edition of the International Classification of Diseases for Oncology, the behavior code of myelodysplastic syndromes and chronic myeloproliferative disorders was changed from /1, borderline malignancy or low malignant potential, to /3, malignant primary site. These diagnoses became reportable for cases diagnosed in 2001+ when ICD-O-3 went into effect. CMML has been reportable for all years. CMML is included here and in the leukemia section.

Table 30.1

Myelodysplastic Syndromes, Chronic Myeloproliferative Disorders, and Chronic Myelomonocytic Leukemia

Counts, Percents and Age-Adjusted Incidence Rates^a for the 21 SEER Geographic Areas by Subtype, 2013-2017

Site	Both Sexes			Males			Females		
	Count	Percent	Rate	Count	Percent	Rate	Count	Percent	Rate
Total	52,474	100.0%	8.1	28,465	100.0%	10.2	24,009	100.0%	6.6
Myelodysplastic Syndromes (MDS)	28,032	100.0%	4.3	16,238	100.0%	6.0	11,794	100.0%	3.2
Refractory anemia (RA), NOS	1,300	4.6%	0.2	710	4.4%	0.3	590	5.0%	0.2
RA with ringed sideroblasts	1,574	5.6%	0.2	898	5.5%	0.3	676	5.7%	0.2
RA with excess blasts (RAEB)	4,582	16.3%	0.7	2,815	17.3%	1.0	1,767	15.0%	0.5
RAEB in transformation	-	-	-	-	-	-	-	-	-
Refractory cytopenia w/multilineage dysplasia	2,172	7.7%	0.3	1,425	8.8%	0.5	747	6.3%	0.2
Myelodysplastic syndrome with 5q deletion	1,076	3.8%	0.2	429	2.6%	0.2	647	5.5%	0.2
Therapy-related myelodysplastic syndrome	-	-	-	-	-	-	-	-	-
Myelodysplastic syndrome, NOS	17,328	61.8%	2.7	9,961	61.3%	3.7	7,367	62.5%	2.0
Chronic Myeloproliferative Disorders (CMD)	21,268	100.0%	3.3	10,222	100.0%	3.4	11,046	100.0%	3.1
Polycythemia vera	8,718	41.0%	1.3	4,886	47.8%	1.6	3,832	34.7%	1.1
Chronic myeloproliferative disease, NOS	-	-	-	-	-	-	-	-	-
Myelosclerosis with myeloid metaplasia	2,375	11.2%	0.4	1,399	13.7%	0.5	976	8.8%	0.3
Essential thrombocythemia	9,940	46.7%	1.5	3,789	37.1%	1.3	6,151	55.7%	1.8
Chronic neutrophilic leukemia	54	0.3%	0.0	33	0.3%	0.0	21	0.2%	0.0
Hypereosinophilic syndrome	181	0.9%	0.0	115	1.1%	0.0	66	0.6%	0.0
Chronic Myelomonocytic Leukemia (CMML)	3,174	100.0%	0.5	2,005	100.0%	0.7	1,169	100.0%	0.3

Source: SEER 21 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, Georgia excluding ATL/RG, Idaho, New York and Massachusetts).

^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

- Statistic not shown due to fewer than 16 cases during the time period.

Table 30.2

Myelodysplastic Syndromes, Chronic Myeloproliferative Disorders, and
Chronic Myelomonocytic LeukemiaAge-Adjusted Incidence Rates^a for the 21 SEER Geographic Areas by Age and Race, 2013-2017

Site	Both Sexes		Males		Females	
	Rate	Count	Rate	Count	Rate	Count
Myelodysplastic Syndromes (MDS)						
By age						
Ages <40	0.1	441	0.1	229	0.1	212
Ages 40-49	0.7	507	0.7	259	0.6	248
Ages 50-59	2.0	1,694	2.4	971	1.7	723
Ages 60-69	8.1	4,899	10.2	2,932	6.1	1,967
Ages 70-79	26.3	8,693	35.7	5,262	18.7	3,431
Ages 80+	54.2	11,798	81.1	6,585	38.1	5,213
By race						
All Races	4.3	28,032	6.0	16,238	3.2	11,794
White	4.6	23,735	6.3	13,954	3.3	9,781
Black	3.5	2,225	4.5	1,123	2.9	1,102
Asian/Pacific Islander	2.9	1,663	3.9	932	2.2	731
American Indian/Alaska Native ^b	2.4	71	3.5	47	1.5	24
Hispanic ^c	3.1	2,204	3.8	1,139	2.6	1,065
Chronic Myeloproliferative Disorders (CMD)						
By age						
Ages <40	0.5	1,602	0.5	754	0.5	848
Ages 40-49	2.4	1,870	2.5	975	2.3	895
Ages 50-59	4.3	3,467	4.8	1,900	3.8	1,567
Ages 60-69	8.6	5,243	9.2	2,680	8.0	2,563
Ages 70-79	14.8	4,944	15.2	2,284	14.4	2,660
Ages 80+	19.3	4,142	20.2	1,629	18.8	2,513
By race						
All Races	3.3	21,268	3.4	10,222	3.1	11,046
White	3.4	17,215	3.5	8,332	3.2	8,883
Black	3.1	2,199	3.2	1,000	3.0	1,199
Asian/Pacific Islander	1.9	1,194	2.1	590	1.8	604
American Indian/Alaska Native ^b	1.6	60	1.7	30	1.5	30
Hispanic ^c	2.0	1,794	2.2	882	1.9	912
Chronic Myelomonocytic Leukemia (CMML)						
By age						
Ages <40	0.0	32	-	-	0.0	19
Ages 40-49	0.1	41	0.0	18	0.1	23
Ages 50-59	0.2	181	0.3	123	0.1	58
Ages 60-69	1.1	700	1.7	487	0.7	213
Ages 70-79	3.3	1,090	4.8	705	2.1	385
Ages 80+	5.3	1,130	8.1	659	3.5	471
By race						
All Races	0.5	3,174	0.7	2,005	0.3	1,169
White	0.5	2,707	0.8	1,731	0.3	976
Black	0.4	243	0.5	134	0.3	109
Asian/Pacific Islander	0.3	184	0.5	116	0.2	68
American Indian/Alaska Native ^b	-	-	-	-	-	-
Hispanic ^c	0.3	227	0.4	131	0.2	96

Source: SEER 21 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, Georgia excluding ATL/RG, Idaho, New York and Massachusetts).

^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^b Incidence data for American Indian/Alaska Native are based on the PRCD (Purchased/Referred Care Delivery Areas) counties.

^c Hispanics are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

- Statistic not shown due to fewer than 16 cases during the time period.