

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 18 SEER Geographic Areas by Subtype, 2007-2011

Site	Both Sexes			Males			Females		
	Count	Percent	Rate	Count	Percent	Rate	Count	Percent	Rate
Total	33,590	100.0%	8.0	18,269	100.0%	10.3	15,321	100.0%	6.4
Myelodysplastic Syndromes (MDS)	20,541	100.0%	4.9	11,479	100.0%	6.7	9,062	100.0%	3.8
Refractory anemia (RA), NOS	1,991	9.7%	0.5	1,032	9.0%	0.6	959	10.6%	0.4
RA with ringed sideroblasts	1,409	6.9%	0.3	784	6.8%	0.5	625	6.9%	0.3
RA with excess blasts (RAEB)	2,741	13.3%	0.7	1,617	14.1%	0.9	1,124	12.4%	0.5
RAEB in transformation	76	0.4%	0.0	47	0.4%	0.0	29	0.3%	0.0
Refractory cytopenia w/multilineage dysplasia	1,409	6.9%	0.3	917	8.0%	0.5	492	5.4%	0.2
Myelodysplastic syndrome with 5q deletion	565	2.8%	0.1	228	2.0%	0.1	337	3.7%	0.1
Therapy-related myelodysplastic syndrome	361	1.8%	0.1	193	1.7%	0.1	168	1.9%	0.1
Myelodysplastic syndrome, NOS	11,989	58.4%	2.9	6,661	58.0%	3.9	5,328	58.8%	2.2
Chronic Myeloproliferative Disorders (CMD)	11,285	100.0%	2.6	5,672	100.0%	3.0	5,613	100.0%	2.4
Polycythemia vera	4,100	36.3%	0.9	2,313	40.8%	1.2	1,787	31.8%	0.8
Chronic myeloproliferative disease, NOS	1,376	12.2%	0.3	732	12.9%	0.4	644	11.5%	0.3
Myelosclerosis with myeloid metaplasia	1,295	11.5%	0.3	795	14.0%	0.4	500	8.9%	0.2
Essential thrombocythemia	4,335	38.4%	1.0	1,717	30.3%	0.9	2,618	46.6%	1.1
Chronic neutrophilic leukemia	20	0.2%	0.0	17	0.3%	0.0	-	-	-
Hypereosinophilic syndrome	159	1.4%	0.0	98	1.7%	0.0	61	1.1%	0.0
Chronic Myelomonocytic Leukemia (CMML)	1,764	100.0%	0.4	1,118	100.0%	0.6	646	100.0%	0.3

Source: SEER 18 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 and Georgia excluding ATL/RG).

^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 Leukemia

Age-Adjusted Incidence Rates^a for the 18 SEER Geographic Areas by Age and Race, 2007-2011

Site	Both Sexes		Males		Females	
	Rate	Count	Rate	Count	Rate	Count
Myelodysplastic Syndromes (MDS)						
By age						
Ages <40	0.2	382	0.2	192	0.2	190
Ages 40-49	0.8	494	0.8	238	0.8	256
Ages 50-59	2.5	1,449	2.8	775	2.3	674
Ages 60-69	9.9	3,525	12.1	2,041	7.9	1,484
Ages 70-79	30.3	6,323	40.3	3,692	22.6	2,631
Ages 80+	58.0	8,368	87.4	4,541	41.5	3,827
By race						
All Races	4.9	20,541	6.7	11,479	3.8	9,062
White	5.1	17,276	6.9	9,798	3.8	7,478
Black	4.1	1,537	5.1	726	3.6	811
Asian/Pacific Islander	3.9	1,339	5.2	750	2.9	589
American Indian/Alaska Native ^b	3.0	63	3.2	33	2.8	30
Hispanic ^c	3.6	1,554	4.4	799	3.1	755
Chronic Myeloproliferative Disorders (CMD)						
By age						
Ages <40	0.4	823	0.4	419	0.4	404
Ages 40-49	1.7	1,069	1.8	568	1.6	501
Ages 50-59	3.1	1,774	3.6	987	2.7	787
Ages 60-69	6.9	2,518	7.9	1,351	6.1	1,167
Ages 70-79	12.5	2,604	14.1	1,304	11.1	1,300
Ages 80+	17.4	2,497	20.0	1,043	15.9	1,454
By race						
All Races	2.6	11,285	3.0	5,672	2.4	5,613
White	2.6	8,973	2.9	4,524	2.4	4,449
Black	2.8	1,184	3.1	561	2.6	623
Asian/Pacific Islander	1.9	755	2.2	388	1.7	367
American Indian/Alaska Native ^b	1.5	38	2.1	22	1.1	16
Hispanic ^c	1.7	889	1.9	454	1.5	435
Chronic Myelomonocytic Leukemia (CMML)						
By age						
Ages <40	0.0	23	0.0	17	-	-
Ages 40-49	0.1	37	0.1	20	0.1	17
Ages 50-59	0.2	117	0.3	90	0.1	27
Ages 60-69	1.0	350	1.4	234	0.6	116
Ages 70-79	2.8	577	4.3	391	1.6	186
Ages 80+	4.6	660	7.0	366	3.2	294
By race						
All Races	0.4	1,764	0.6	1,118	0.3	646
White	0.4	1,523	0.7	968	0.3	555
Black	0.3	104	0.4	55	0.2	49
Asian/Pacific Islander	0.3	110	0.5	77	0.2	33
American Indian/Alaska Native ^b	-	-	-	-	-	-
Hispanic ^c	0.3	127	0.4	80	0.2	47

Source: SEER 18 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 and Georgia excluding ATL/RG).

^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 CHSDA (Contract Health Service Delivery Area) 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.