

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, 2006-2010

Site	Both Sexes			Males			Females		
	Count	Percent	Rate	Count	Percent	Rate	Count	Percent	Rate
Total	32,186	100.0%	7.8	17,536	100.0%	10.1	14,650	100.0%	6.2
Myelodysplastic Syndromes (MDS)	19,631	100.0%	4.8	10,960	100.0%	6.5	8,671	100.0%	3.7
Refractory anemia (RA), NOS	2,078	10.6%	0.5	1,073	9.8%	0.6	1,005	11.6%	0.4
RA with ringed sideroblasts	1,424	7.3%	0.3	806	7.4%	0.5	618	7.1%	0.3
RA with excess blasts (RAEB)	2,656	13.5%	0.7	1,577	14.4%	0.9	1,079	12.4%	0.5
RAEB in transformation	87	0.4%	0.0	50	0.5%	0.0	37	0.4%	0.0
Refractory cytopenia w/multilineage dysplasia	1,241	6.3%	0.3	812	7.4%	0.5	429	4.9%	0.2
Myelodysplastic syndrome with 5q deletion	489	2.5%	0.1	192	1.8%	0.1	297	3.4%	0.1
Therapy-related myelodysplastic syndrome	345	1.8%	0.1	186	1.7%	0.1	159	1.8%	0.1
Myelodysplastic syndrome, NOS	11,311	57.6%	2.8	6,264	57.2%	3.8	5,047	58.2%	2.1
Chronic Myeloproliferative Disorders (CMD)	10,879	100.0%	2.6	5,522	100.0%	2.9	5,357	100.0%	2.3
Polycythemia vera	3,966	36.5%	0.9	2,297	41.6%	1.2	1,669	31.2%	0.7
Chronic myeloproliferative disease, NOS	1,511	13.9%	0.4	775	14.0%	0.4	736	13.7%	0.3
Myelosclerosis with myeloid metaplasia	1,217	11.2%	0.3	747	13.5%	0.4	470	8.8%	0.2
Essential thrombocythemia	4,005	36.8%	1.0	1,592	28.8%	0.9	2,413	45.0%	1.1
Chronic neutrophilic leukemia	24	0.2%	0.0	18	0.3%	0.0	-	-	-
Hypereosinophilic syndrome	156	1.4%	0.0	93	1.7%	0.0	63	1.2%	0.0
Chronic Myelomonocytic Leukemia (CMML)	1,676	100.0%	0.4	1,054	100.0%	0.6	622	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, 2006-2010

Site	Both Sexes		Males		Females	
	Rate	Count	Rate	Count	Rate	Count
Myelodysplastic Syndromes (MDS)						
By age						
Ages <40	0.2	369	0.2	194	0.2	175
Ages 40-49	0.8	493	0.7	233	0.8	260
Ages 50-59	2.6	1,436	2.8	765	2.3	671
Ages 60-69	9.8	3,336	12.0	1,921	7.9	1,415
Ages 70-79	29.6	6,114	39.5	3,577	21.9	2,537
Ages 80+	55.8	7,883	84.5	4,270	39.9	3,613
By race						
All Races	4.8	19,631	6.5	10,960	3.7	8,671
White	4.9	16,603	6.7	9,400	3.7	7,203
Black	4.1	1,467	5.1	700	3.5	767
Asian/Pacific Islander	3.7	1,231	5.1	699	2.7	532
American Indian/Alaska Native ^b	3.0	59	3.3	29	2.8	30
Hispanic ^c	3.7	1,496	4.4	749	3.2	747
Chronic Myeloproliferative Disorders (CMD)						
By age						
Ages <40	0.4	830	0.4	437	0.3	393
Ages 40-49	1.7	1,070	1.8	573	1.6	497
Ages 50-59	3.1	1,725	3.6	989	2.6	736
Ages 60-69	6.6	2,298	7.6	1,239	5.8	1,059
Ages 70-79	12.2	2,532	13.9	1,266	10.9	1,266
Ages 80+	17.2	2,424	20.0	1,018	15.6	1,406
By race						
All Races	2.6	10,879	2.9	5,522	2.3	5,357
White	2.6	8,711	2.9	4,433	2.3	4,278
Black	2.6	1,080	3.0	531	2.4	549
Asian/Pacific Islander	1.9	710	2.2	363	1.7	347
American Indian/Alaska Native ^b	1.6	38	2.4	24	-	-
Hispanic ^c	1.8	894	2.0	452	1.6	442
Chronic Myelomonocytic Leukemia (CMML)						
By age						
Ages <40	0.0	19	-	-	-	-
Ages 40-49	0.1	36	0.1	20	0.0	16
Ages 50-59	0.2	109	0.3	81	0.1	28
Ages 60-69	1.0	328	1.3	215	0.6	113
Ages 70-79	2.7	563	4.2	384	1.5	179
Ages 80+	4.4	621	6.7	341	3.1	280
By race						
All Races	0.4	1,676	0.6	1,054	0.3	622
White	0.4	1,457	0.6	920	0.3	537
Black	0.3	96	0.4	50	0.2	46
Asian/Pacific Islander	0.3	102	0.5	74	0.1	28
American Indian/Alaska Native ^b	-	-	-	-	-	-
Hispanic ^c	0.3	121	0.4	77	0.2	44

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.