

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, 2010-2014

Site	Both Sexes			Males			Females		
	Count	Percent	Rate	Count	Percent	Rate	Count	Percent	Rate
Total	35,264	100.0%	7.9	19,419	100.0%	10.1	15,845	100.0%	6.3
Myelodysplastic Syndromes (MDS)	21,299	100.0%	4.8	12,215	100.0%	6.6	9,084	100.0%	3.5
Refractory anemia (RA), NOS	1,564	7.3%	0.4	845	6.9%	0.5	719	7.9%	0.3
RA with ringed sideroblasts	1,310	6.2%	0.3	738	6.0%	0.4	572	6.3%	0.2
RA with excess blasts (RAEB)	3,222	15.1%	0.7	1,952	16.0%	1.0	1,270	14.0%	0.5
RAEB in transformation	-	-	-	-	-	-	-	-	-
Refractory cytopenia w/multilineage dysplasia	1,624	7.6%	0.4	1,084	8.9%	0.6	540	5.9%	0.2
Myelodysplastic syndrome with 5q deletion	701	3.3%	0.2	284	2.3%	0.2	417	4.6%	0.2
Therapy-related myelodysplastic syndrome	-	-	-	-	-	-	-	-	-
Myelodysplastic syndrome, NOS	12,878	60.5%	2.9	7,312	59.9%	4.0	5,566	61.3%	2.1
Chronic Myeloproliferative Disorders (CMD)	12,021	100.0%	2.6	5,964	100.0%	2.9	6,057	100.0%	2.4
Polycythemia vera	5,097	42.4%	1.1	2,875	48.2%	1.3	2,222	36.7%	0.9
Chronic myeloproliferative disease, NOS	-	-	-	-	-	-	-	-	-
Myelosclerosis with myeloid metaplasia	1,571	13.1%	0.3	935	15.7%	0.5	636	10.5%	0.3
Essential thrombocythemia	5,192	43.2%	1.1	2,052	34.4%	1.0	3,140	51.8%	1.3
Chronic neutrophilic leukemia	38	0.3%	0.0	23	0.4%	0.0	-	-	-
Hypereosinophilic syndrome	123	1.0%	0.0	79	1.3%	0.0	44	0.7%	0.0
Chronic Myelomonocytic Leukemia (CMML)	1,944	100.0%	0.4	1,240	100.0%	0.7	704	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, 2010-2014

Site	Both Sexes		Males		Females	
	Rate	Count	Rate	Count	Rate	Count
Myelodysplastic Syndromes (MDS)						
By age						
Ages <40	0.1	330	0.1	166	0.1	164
Ages 40-49	0.7	426	0.7	222	0.7	204
Ages 50-59	2.3	1,400	2.6	782	2.0	618
Ages 60-69	8.9	3,637	11.2	2,160	6.9	1,477
Ages 70-79	29.4	6,533	39.5	3,897	21.4	2,636
Ages 80+	59.1	8,973	89.1	4,988	41.5	3,985
By race						
All Races	4.8	21,299	6.6	12,215	3.5	9,084
White	5.0	17,887	6.9	10,424	3.6	7,463
Black	4.1	1,651	5.3	835	3.3	816
Asian/Pacific Islander	3.5	1,411	4.6	780	2.7	631
American Indian/Alaska Native ^b	3.1	74	3.6	39	2.7	35
Hispanic ^c	3.4	1,699	4.3	894	2.8	805
Chronic Myeloproliferative Disorders (CMD)						
By age						
Ages <40	0.4	821	0.3	397	0.4	424
Ages 40-49	1.8	1,088	1.9	586	1.6	502
Ages 50-59	3.4	2,051	3.9	1,150	2.9	901
Ages 60-69	7.0	2,899	7.8	1,526	6.3	1,373
Ages 70-79	12.2	2,723	12.9	1,292	11.6	1,431
Ages 80+	16.2	2,439	18.1	1,013	15.1	1,426
By race						
All Races	2.6	12,021	2.9	5,964	2.4	6,057
White	2.7	9,731	2.9	4,876	2.5	4,855
Black	2.5	1,176	2.7	559	2.3	617
Asian/Pacific Islander	1.8	806	1.9	386	1.7	420
American Indian/Alaska Native ^b	1.6	45	1.7	22	1.5	23
Hispanic ^c	1.5	927	1.7	469	1.4	458
Chronic Myelomonocytic Leukemia (CMML)						
By age						
Ages <40	0.0	20	-	-	-	-
Ages 40-49	0.1	35	0.1	18	0.1	17
Ages 50-59	0.2	121	0.3	87	0.1	34
Ages 60-69	1.0	418	1.5	286	0.6	132
Ages 70-79	2.9	644	4.3	423	1.8	221
Ages 80+	4.7	706	7.4	414	3.1	292
By race						
All Races	0.4	1,944	0.7	1,240	0.3	704
White	0.5	1,678	0.7	1,086	0.3	592
Black	0.3	128	0.4	68	0.3	60
Asian/Pacific Islander	0.3	118	0.4	73	0.2	45
American Indian/Alaska Native ^b	-	-	-	-	-	-
Hispanic ^c	0.3	146	0.5	94	0.2	52

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.