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 17 SEER Geographic Areas by Subtype, 2004-2008

Site	Both Sexes			Males			Females		
	Count	Percent	Rate	Count	Percent	Rate	Count	Percent	Rate
Total	27,164	100.0%	7.4	14,767	100.0%	9.5	12,397	100.0%	5.9
Myelodysplastic Syndromes (MDS)	16,230	100.0%	4.4	9,048	100.0%	6.1	7,182	100.0%	3.4
Refractory anemia (RA), NOS	2,013	12.4%	0.6	1,060	11.7%	0.7	953	13.3%	0.5
RA with ringed sideroblasts	1,397	8.6%	0.4	800	8.8%	0.5	597	8.3%	0.3
RA with excess blasts (RAEB)	2,290	14.1%	0.6	1,348	14.9%	0.9	942	13.1%	0.5
RAEB in transformation	94	0.6%	0.0	52	0.6%	0.0	42	0.6%	0.0
Refractory cytopenia w/multilineage dysplasia	953	5.9%	0.3	619	6.8%	0.4	334	4.7%	0.2
Myelodysplastic syndrome with 5q deletion	328	2.0%	0.1	117	1.3%	0.1	211	2.9%	0.1
Therapy-related myelodysplastic syndrome	278	1.7%	0.1	141	1.6%	0.1	137	1.9%	0.1
Myelodysplastic syndrome, NOS	8,877	54.7%	2.4	4,911	54.3%	3.3	3,966	55.2%	1.8
Chronic Myeloproliferative Disorders (CMD)	9,509	100.0%	2.5	4,845	100.0%	2.9	4,664	100.0%	2.2
Polycythemia vera	3,669	38.6%	1.0	2,127	43.9%	1.2	1,542	33.1%	0.7
Chronic myeloproliferative disease, NOS	1,573	16.5%	0.4	798	16.5%	0.5	775	16.6%	0.4
Myelosclerosis with myeloid metaplasia	992	10.4%	0.3	573	11.8%	0.4	419	9.0%	0.2
Essential thrombocythemia	3,094	32.5%	0.8	1,243	25.7%	0.8	1,851	39.7%	0.9
Chronic neutrophilic leukemia	21	0.2%	0.0	_	-	_	-	-	-
Hypereosinophilic syndrome	160	1.7%	0.0	92	1.9%	0.1	68	1.5%	0.0
Chronic Myelomonocytic Leukemia (CMML)	1,425	100.0%	0.4	874	100.0%	0.6	551	100.0%	0.3

Source: SEER 17 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 and New Jersey).

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 17 SEER Geographic Areas by Age and Race, 2004-2008

Myelodysplastic Syndromes (MDS) Syr age Ages 40.49 Ages		Both	Sexes	Mai	les	Females		
By age Ages <40	Site	Rate	Count	Rate	Count	Rate	Count	
By age Ages <40								
Åges 40-49 0.2 362 0.2 190 0.2 172 Åges 50-59 0.8 465 0.7 212 0.9 253 Åges 60-69 9.2 2.619 11.0 1.477 7.6 1.142 Åges 70-79 27.1 5.149 36.6 3.021 19.8 2.228 Åges 80+ 49.8 6.414 77.5 3.480 35.2 2.934 By race All Races 4.4 16.230 6.1 9.048 3.4 7.182 Mhite 4.5 13.799 6.2 7.795 3.4 6.004 Black 3.8 1,112 4.8 523 3.4 589 Aslan/Pacific Islander 3.3 1,254 3.8 623 2.5 21 2.8 27 American Indian/Alaska Native ^b 2.6 48 2.5 21 2.8 27 Ajes 40-49 1.7 993 1.9 563 1.5 430								
Ages 40-49 Ages 50-59 Ages 50-59 Ages 50-69 Ages 60-69 Ages 70-79		0 0	260	0.0	100	0.0	150	
Ages 50-59	_							
Ages 60-69 9.2 2.619 11.0 1,477 7.6 1,142 Ages 70-79 27.1 5,149 36.6 3,021 19.8 2,128 Ages 80+ 49.8 6,414 77.5 3,480 35.2 2,934 By race All Races 4.4 16,230 6.1 9,048 3.4 7,182 White 4.5 13,799 6.2 7,795 3.4 6,004 Black 3.8 1,112 4.8 523 3.4 589 Asian/Pacific Islander 3.8 1,112 4.8 523 3.4 589 Asian/Pacific Islander 3.3 989 4.5 564 2.4 425 American Indian/Alaska Native 2.6 48 2.5 21 2.8 27 Hispanic 3.3 1,254 3.8 623 2.9 631 Chronic Myeloproliferative Disorders (CMD) By age Ages 40 0.3 725 0.4 413 0.3 312 Ages 40-49 1.7 993 1.9 563 1.5 430 Ages 50-59 3.1 1,522 3.7 868 2.6 654 Ages 60-69 6.8 1,959 7.7 1,045 6.1 914 Ages 80+ 15.4 1,985 17.5 795 14.3 1,190 By race All Races 2.5 9,509 2.9 4,845 2.2 4,664 White 2.5 7,716 2.9 3,957 2.2 3,759 Black American Indian/Alaska Native 1.5 33 1.6 18 Hispanic Islander Ages 40-9 0.0 28 Ages 60-69 0.9 2.60 1.3 176 0.6 84 Ages 70-79 1.8 392 1.6 407 Chronic Myelomonocytic Leukemia (CMML) By age Ages 40 0.0 22 Ages 60-69 0.9 2.60 1.3 176 0.6 84 Ages 70-79 2.2 6.7 5 34 Ages 60-69 0.9 2.60 1.3 176 0.6 84 Ages 70-79 2.2 6.4 45 3.9 325 1.5 160 Ages 80+ 4.2 539 6.4 290 3.0 249 By race All Races 0.4 1,245 0.6 874 0.3 351 1.5 160 Ages 80+ 4.2 539 6.4 290 3.0 249 By race All Races 0.4 1,245 0.6 874 0.3 351 1.5 160 Ages 80+ 4.2 539 6.4 290 3.0 249 By race All Races 0.4 1,245 0.6 874 0.3 351 1.5 160 Ages 80+ 4.2 539 6.4 290 3.0 249 By race All Races 0.4 1,245 0.6 874 0.3 551 Mhite 0.4 1,245 0.6 874 0.4 41 0.2 33 Asian/Pacific Islander 0.3 74 0.4 51 0.4 52 0.1 18 American Indian/Alaska Native 0.2 70 0.4 552 0.1 18 American Indian/Alaska Native 0.2 70 0.4 552 0.1 18 American Indian/Alaska Native 0.2 70 0.4 552 0.1 18 American Indian/Alaska Native 0.2 70 0.2 70	_							
Ages 70-79 27.1 5,149 36.6 3,021 19.8 2,128 Ages 80+ 49.8 6,414 77.5 3,480 35.2 2,934 By race 4 16,230 6.1 9,048 3.4 7,182 White 4.5 13,799 6.2 7,795 3.4 6,004 Black 3.8 1,112 4.8 523 3.4 6,004 Asian/Pacific Islander 3.3 989 4.5 564 2.4 425 American Indian/Alaska Native ^b 2.6 48 2.5 21 2.8 27 Hispanic* 2.6 48 2.5 21 2.8 27 Hispanic* 2.6 48 2.5 21 2.8 27 Chronic Myeloproliferative Disorders (CMD) 2.8 2.1 2.8 2.1 2.8 2.1 2.8 2.1 Ages 40 0.3 7.2 0.4 413 0.3 312 4.2 4.2 </td <td>_</td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td></td>	_		,					
Ages 80+	9		•				,	
By race All Races	9		,					
All Races	_	49.8	6,414	77.5	3,480	35.2	2,934	
White	-							
Black							,	
Asian/Pacific Islander Asian/Pacific Islander American Indian/Alaska Nativeb Asian/Pacific Islander Asian/Pacific								
American Indian/Alaska Native ^b 2.6 48 2.5 21 2.8 27 Hispanic ^c 3.3 1,254 3.8 623 2.9 631 Chronic Myeloproliferative Disorders (CMD) By age Ages <40 0.3 725 0.4 413 0.3 312 Ages 50-59 3.1 1,522 3.7 868 2.6 654 Ages 60-69 6.8 1,959 7.7 1,045 6.1 914 Ages 80+ 15.4 1,985 17.5 795 14.3 1,190 By race All Races 2.5 9,509 2.9 4,845 2.2 4,664 White 2.5 7,716 2.9 3,957 2.2 3,759 Black 2.5 818 2.8 408 2.2 410 Asian/Pacific Islander 1.9 634 2.0 310 1.7 324 American Indian/Alaska Native ^b 1.5 33 1.6 18 Hispanic ^c 1.7 799 1.8 392 1.6 407 Chronic Myelomonocytic Leukemia (CMML) By age Ages <40 0.0 22 Ages 40-49 0.0 28 Ages 60-69 0.9 260 1.3 176 0.6 84 Ages 70-79 2.6 485 3.9 325 1.5 160 Ages 80+ 0.1 2.6 485 3.9 325 1.5 160 Ages 80+ 0.2 91 0.2 56 0.1 35 Ages 60-69 0.9 260 1.3 176 0.6 84 Ages 70-79 2.6 485 3.9 325 1.5 160 Ages 80+ 0.2 539 6.4 290 3.0 249 By race All Races 0.4 1,425 0.6 874 0.3 551 White 0.4 1,425 0.6 874 0.3 551 Ages 60-60 874 0.4 41 0.2 33 Asian/Pacific Islander 0.2 70 0.4 52 0.1 18 Asian/Pacific Islander 0.2 70 0.4 52 0.1 18 Asian/Pacific Islander 0.2 70 0.4 52 0.1 18								
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Chronic Myeloproliferative Disorders (CMD) By age Ages <40	American Indian/Alaska Native ^b	2.6	48	2.5	21	2.8	27	
By age Ages <40	Hispanic ^c	3.3	1,254	3.8	623	2.9	631	
By age Ages <40	Chronic Myeloproliferative Disorders	(CMD)						
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Ages 40-49		0.3	725	0.4	413	0.3	312	
Ages 50-59 3.1 1,522 3.7 868 2.6 654 Ages 60-69 6.8 1,959 7.7 1,045 6.1 914 Ages 70-79 12.2 2,325 14.0 1,161 10.9 1,164 Ages 80+ 15.4 1,985 17.5 795 14.3 1,190 By race All Races	9							
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White 0.4 1,263 0.6 770 0.3 493 Black 0.3 74 0.4 41 0.2 33 Asian/Pacific Islander 0.2 70 0.4 52 0.1 18 American Indian/Alaska Native ^b	By race							
Black 0.3 74 0.4 41 0.2 33 Asian/Pacific Islander 0.2 70 0.4 52 0.1 18 American Indian/Alaska Native ^b - - - - - - - -	All Races	0.4	1,425	0.6	874	0.3	551	
Asian/Pacific Islander 0.2 70 0.4 52 0.1 18 American Indian/Alaska Native ^b	White	0.4	1,263	0.6	770	0.3	493	
American Indian/Alaska Native ^b	Black	0.3	74	0.4	41	0.2	33	
	Asian/Pacific Islander	0.2	70	0.4	52	0.1	18	
	American Indian/Alaska Native ^b	_	_	_	_	_	_	
	Hispanic ^c	0.3	103	0.4	64	0.2	39	

Source: SEER 17 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 and New Jersey).

a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Incidence data for American Indian/Alaska Native are based on the CHSDA

⁽Contract Health Service Delivery Area) counties. 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.