Chemotherapy agents - Alkylating agents (including Platinum drugs): All cancers

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**23716**	**568**	**2.4**	**225**	**1.0**	**877**	**3.7**	**803**	**3.4**	**59**	**0.3**	**2133**	**9.1**	**10457**	**44.6**
	Age at baseline	<18	5295	94	1.8	44	0.8	304	5.8	172	3.3	3	0.1	548	10.4	2474	47.1
		18-19	1964	38	1.9	16	0.8	114	5.8	55	2.8	.	.	156	8.0	866	44.5
		20-24	5511	108	2.0	46	0.8	224	4.1	178	3.3	12	0.2	563	10.3	2390	43.8
		25-29	5150	163	3.2	56	1.1	154	3.0	221	4.3	10	0.2	445	8.7	2254	44.3
		30-34	3566	97	2.8	37	1.0	60	1.7	131	3.7	13	0.4	287	8.1	1598	45.5
		35+	2230	68	3.1	26	1.2	21	1.0	46	2.1	21	1.0	134	6.1	875	39.9
	Years since diagnosis	5-9	2391	88	3.7	21	0.9	100	4.2	131	5.5	11	0.5	363	15.3	1162	49.3
		10-14	7681	161	2.1	63	0.8	318	4.2	272	3.6	9	0.1	710	9.3	3649	48.0
		15-19	7592	162	2.2	90	1.2	347	4.6	223	3.0	14	0.2	596	7.9	3231	43.1
		20+	6052	157	2.6	51	0.9	112	1.9	177	3.0	25	0.4	464	7.7	2415	40.4
	Age at diagnosis	<1	1789	16	0.9	24	1.3	133	7.5	29	1.6	.	.	216	12.1	792	44.8
		1-4	7646	141	1.9	59	0.8	357	4.7	172	2.3	6	0.1	631	8.3	3212	42.4
		5-9	5313	123	2.3	38	0.7	188	3.6	265	5.0	8	0.2	425	8.1	2311	43.9
		10-14	5026	154	3.1	61	1.2	125	2.5	207	4.2	15	0.3	509	10.2	2441	49.2
		15-20	3942	134	3.5	43	1.1	74	1.9	130	3.3	30	0.8	352	9.1	1701	43.9
Males	**All cases**		**12555**	**337**	**2.7**	**115**	**0.9**	**493**	**4.0**	**488**	**3.9**	**26**	**0.2**	**1169**	**9.4**	**5783**	**46.6**
	Age at baseline	<18	2844	50	1.8	16	0.6	177	6.3	110	3.9	3	0.1	313	11.1	1394	49.5
		18-19	1013	26	2.6	10	1.0	56	5.6	33	3.3	.	.	80	8.0	472	47.0
		20-24	2866	60	2.1	25	0.9	124	4.4	111	3.9	10	0.4	300	10.6	1279	45.1
		25-29	2820	108	3.9	30	1.1	95	3.4	142	5.1	2	0.1	255	9.1	1282	46.0
		30-34	1889	63	3.4	21	1.1	29	1.6	68	3.6	4	0.2	148	7.9	888	47.7
		35+	1123	30	2.7	13	1.2	12	1.1	24	2.2	7	0.6	73	6.6	468	42.3
	Years since diagnosis	5-9	1331	51	3.9	8	0.6	52	3.9	79	6.0	9	0.7	196	14.9	674	51.5
		10-14	4084	97	2.4	32	0.8	182	4.5	174	4.3	4	0.1	401	9.9	2019	49.9
		15-19	3944	99	2.5	48	1.2	192	4.9	136	3.5	5	0.1	328	8.4	1763	45.3
		20+	3196	90	2.8	27	0.9	67	2.1	99	3.1	8	0.3	244	7.7	1327	42.0
	Age at diagnosis	<1	907	7	0.8	10	1.1	77	8.5	19	2.1	.	.	107	11.9	402	44.9
		1-4	3967	79	2.0	33	0.8	197	5.0	107	2.7	5	0.1	351	8.9	1763	44.9
		5-9	2975	85	2.9	19	0.6	114	3.9	172	5.8	1	0.0	253	8.6	1361	46.3
		10-14	2625	95	3.6	24	0.9	65	2.5	110	4.2	8	0.3	251	9.6	1307	50.3
		15-20	2081	71	3.5	29	1.4	40	1.9	80	3.9	12	0.6	207	10.1	950	46.5
Females	**All cases**		**11161**	**231**	**2.1**	**110**	**1.0**	**384**	**3.5**	**315**	**2.8**	**33**	**0.3**	**964**	**8.7**	**4674**	**42.3**
	Age at baseline	<18	2451	44	1.8	28	1.1	127	5.2	62	2.5	.	.	235	9.6	1080	44.4
		18-19	951	12	1.3	6	0.6	58	6.2	22	2.3	.	.	76	8.1	394	41.9
		20-24	2645	48	1.8	21	0.8	100	3.8	67	2.6	2	0.1	263	10.0	1111	42.4
		25-29	2330	55	2.4	26	1.1	59	2.6	79	3.4	8	0.3	190	8.2	972	42.3
		30-34	1677	34	2.0	16	1.0	31	1.9	63	3.8	9	0.5	139	8.4	710	42.9
		35+	1107	38	3.5	13	1.2	9	0.8	22	2.0	14	1.3	61	5.6	407	37.4
	Years since diagnosis	5-9	1060	37	3.5	13	1.2	48	4.6	52	4.9	2	0.2	167	15.9	488	46.5
		10-14	3597	64	1.8	31	0.9	136	3.8	98	2.7	5	0.1	309	8.7	1630	45.8
		15-19	3648	63	1.7	42	1.2	155	4.3	87	2.4	9	0.2	268	7.4	1468	40.7
		20+	2856	67	2.4	24	0.8	45	1.6	78	2.8	17	0.6	220	7.8	1088	38.6
	Age at diagnosis	<1	882	9	1.0	14	1.6	56	6.4	10	1.1	.	.	109	12.4	390	44.7
		1-4	3679	62	1.7	26	0.7	160	4.4	65	1.8	1	0.0	280	7.7	1449	39.8
		5-9	2338	38	1.6	19	0.8	74	3.2	93	4.0	7	0.3	172	7.4	950	40.9
		10-14	2401	59	2.5	37	1.6	60	2.5	97	4.1	7	0.3	258	10.8	1134	47.9
		15-20	1861	63	3.4	14	0.8	34	1.9	50	2.7	18	1.0	145	7.9	751	41.1

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**23716**	**919**	**3.9**	**1289**	**5.5**	**282**	**1.2**	**1086**	**4.6**	**2098**	**8.9**	**185**	**0.8**	**32**	**0.1**
	Age at baseline	<18	5295	160	3.0	215	4.1	98	1.9	80	1.5	156	3.0	41	0.8	22	0.4
		18-19	1964	39	2.0	89	4.6	17	0.9	31	1.6	61	3.1	18	0.9	4	0.2
		20-24	5511	175	3.2	341	6.2	54	1.0	164	3.0	309	5.7	41	0.7	1	0.0
		25-29	5150	186	3.6	316	6.2	36	0.7	250	4.9	568	11.1	31	0.6	5	0.1
		30-34	3566	198	5.6	232	6.6	42	1.2	287	8.2	577	16.4	30	0.9	.	.
		35+	2230	161	7.3	96	4.4	35	1.6	274	12.5	427	19.5	24	1.1	.	.
	Years since diagnosis	5-9	2391	146	6.2	152	6.4	44	1.9	121	5.1	214	9.0	24	1.0	9	0.4
		10-14	7681	295	3.9	398	5.2	101	1.3	269	3.5	680	8.9	48	0.6	20	0.3
		15-19	7592	225	3.0	502	6.7	81	1.1	354	4.7	640	8.5	79	1.0	3	0.0
		20+	6052	253	4.2	237	4.0	56	0.9	342	5.7	564	9.4	34	0.6	.	.
	Age at diagnosis	<1	1789	89	5.0	58	3.3	21	1.2	30	1.7	41	2.3	9	0.5	7	0.4
		1-4	7646	132	1.7	325	4.3	104	1.4	96	1.3	158	2.1	68	0.9	14	0.2
		5-9	5313	129	2.4	278	5.3	49	0.9	150	2.8	336	6.4	29	0.5	5	0.1
		10-14	5026	257	5.2	355	7.1	41	0.8	402	8.1	776	15.6	23	0.5	3	0.1
		15-20	3942	312	8.1	273	7.0	67	1.7	408	10.5	787	20.3	56	1.4	3	0.1
Males	**All cases**		**12555**	**482**	**3.9**	**715**	**5.7**	**138**	**1.1**	**592**	**4.8**	**1099**	**8.8**	**102**	**0.8**	**17**	**0.1**
	Age at baseline	<18	2844	88	3.1	137	4.8	50	1.8	44	1.6	102	3.6	21	0.7	12	0.4
		18-19	1013	26	2.6	45	4.5	6	0.6	22	2.2	37	3.7	8	0.8	1	0.1
		20-24	2866	97	3.4	181	6.4	27	1.0	100	3.5	183	6.4	21	0.7	1	0.0
		25-29	2820	94	3.4	179	6.4	18	0.6	149	5.3	312	11.2	21	0.8	3	0.1
		30-34	1889	109	5.8	123	6.6	19	1.0	153	8.2	281	15.1	19	1.0	.	.
		35+	1123	68	6.1	50	4.5	18	1.6	124	11.2	184	16.6	12	1.1	.	.
	Years since diagnosis	5-9	1331	77	5.9	89	6.8	21	1.6	73	5.5	125	9.5	13	1.0	5	0.4
		10-14	4084	151	3.7	226	5.6	52	1.3	143	3.5	354	8.7	26	0.6	9	0.2
		15-19	3944	122	3.1	274	7.0	41	1.0	198	5.1	340	8.7	42	1.1	3	0.1
		20+	3196	132	4.2	126	4.0	24	0.8	178	5.6	280	8.9	21	0.7	.	.
	Age at diagnosis	<1	907	43	4.8	35	3.9	9	1.0	12	1.3	22	2.4	4	0.4	5	0.6
		1-4	3967	73	1.9	184	4.7	51	1.3	58	1.5	93	2.4	36	0.9	7	0.2
		5-9	2975	90	3.1	160	5.4	22	0.7	106	3.6	232	7.9	15	0.5	2	0.1
		10-14	2625	135	5.2	189	7.3	20	0.8	218	8.4	380	14.6	15	0.6	1	0.0
		15-20	2081	141	6.9	147	7.2	36	1.8	198	9.7	372	18.2	32	1.6	2	0.1
Females	**All cases**		**11161**	**437**	**3.9**	**574**	**5.2**	**144**	**1.3**	**494**	**4.5**	**999**	**9.0**	**83**	**0.7**	**15**	**0.1**
	Age at baseline	<18	2451	72	2.9	78	3.2	48	2.0	36	1.5	54	2.2	20	0.8	10	0.4
		18-19	951	13	1.4	44	4.7	11	1.2	9	1.0	24	2.5	10	1.1	3	0.3
		20-24	2645	78	3.0	160	6.1	27	1.0	64	2.4	126	4.8	20	0.8	.	.
		25-29	2330	92	4.0	137	5.9	18	0.8	101	4.4	256	11.1	10	0.4	2	0.1
		30-34	1677	89	5.4	109	6.6	23	1.4	134	8.1	296	17.9	11	0.7	.	.
		35+	1107	93	8.5	46	4.2	17	1.6	150	13.8	243	22.4	12	1.1	.	.
	Years since diagnosis	5-9	1060	69	6.6	63	6.0	23	2.2	48	4.6	89	8.5	11	1.0	4	0.4
		10-14	3597	144	4.0	172	4.8	49	1.4	126	3.5	326	9.1	22	0.6	11	0.3
		15-19	3648	103	2.8	228	6.3	40	1.1	156	4.3	300	8.3	37	1.0	.	.
		20+	2856	121	4.3	111	3.9	32	1.1	164	5.8	284	10.0	13	0.5	.	.
	Age at diagnosis	<1	882	46	5.2	23	2.6	12	1.4	18	2.1	19	2.2	5	0.6	2	0.2
		1-4	3679	59	1.6	141	3.9	53	1.4	38	1.0	65	1.8	32	0.9	7	0.2
		5-9	2338	39	1.7	118	5.1	27	1.2	44	1.9	104	4.5	14	0.6	3	0.1
		10-14	2401	122	5.1	166	7.0	21	0.9	184	7.7	396	16.7	8	0.3	2	0.1
		15-20	1861	171	9.4	126	6.9	31	1.7	210	11.5	415	22.7	24	1.3	1	0.1

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**7302**	**176**	**2.4**	**196**	**2.7**	**4**	**0.1**	**13**	**0.2**	**.**	**.**	**7**	**0.1**	**3871**	**53.6**
	Age at baseline	<18	2099	48	2.3	40	1.9	2	0.1	8	0.4	.	.	6	0.3	1209	58.1
		18-19	769	11	1.4	13	1.7	.	.	3	0.4	.	.	.	.	387	50.7
		20-24	1799	27	1.5	36	2.0	1	0.1	1	0.1	.	.	.	.	856	48.0
		25-29	1471	57	3.9	50	3.4	.	.	.	.	.	.	1	0.1	768	52.7
		30-34	779	18	2.4	33	4.3	.	.	1	0.1	.	.	.	.	419	55.2
		35+	385	15	3.9	24	6.3	1	0.3	.	.	.	.	.	.	232	60.9
	Years since diagnosis	5-9	906	29	3.2	15	1.7	.	.	1	0.1	.	.	3	0.3	507	56.7
		10-14	2444	52	2.1	56	2.3	1	0.0	10	0.4	.	.	3	0.1	1480	61.1
		15-19	2246	35	1.6	76	3.4	3	0.1	2	0.1	.	.	1	0.0	1081	48.6
		20+	1706	60	3.6	49	2.9	.	.	.	.	.	.	.	.	803	47.7
	Age at diagnosis	<1	233	4	1.7	24	10.4	2	0.9	1	0.4	.	.	.	.	148	64.6
		1-4	3449	79	2.3	52	1.5	1	0.0	6	0.2	.	.	5	0.1	1681	49.2
		5-9	1767	35	2.0	30	1.7	.	.	4	0.2	.	.	1	0.1	872	49.9
		10-14	1216	32	2.6	52	4.3	.	.	2	0.2	.	.	1	0.1	780	64.8
		15-20	637	26	4.2	38	6.1	1	0.2	.	.	.	.	.	.	390	62.5
Males	**All cases**		**3855**	**99**	**2.6**	**97**	**2.5**	**.**	**.**	**6**	**0.2**	**.**	**.**	**5**	**0.1**	**2093**	**54.9**
	Age at baseline	<18	1137	25	2.2	13	1.2	.	.	4	0.4	.	.	4	0.4	662	58.8
		18-19	410	7	1.7	8	2.0	.	.	2	0.5	.	.	.	.	208	51.0
		20-24	895	12	1.3	19	2.1	.	.	.	.	.	.	.	.	434	48.8
		25-29	788	37	4.7	25	3.2	.	.	.	.	.	.	1	0.1	428	55.0
		30-34	411	13	3.3	20	5.0	.	.	.	.	.	.	.	.	233	58.5
		35+	214	5	2.4	12	5.7	.	.	.	.	.	.	.	.	128	60.4
	Years since diagnosis	5-9	510	16	3.2	4	0.8	.	.	1	0.2	.	.	2	0.4	290	57.5
		10-14	1300	30	2.3	28	2.2	.	.	5	0.4	.	.	2	0.2	792	61.4
		15-19	1138	19	1.7	39	3.5	.	.	.	.	.	.	1	0.1	573	51.0
		20+	907	34	3.8	26	2.9	.	.	.	.	.	.	.	.	438	48.9
	Age at diagnosis	<1	111	2	1.8	10	9.2	.	.	.	.	.	.	.	.	73	67.6
		1-4	1822	40	2.2	28	1.5	.	.	3	0.2	.	.	3	0.2	908	50.2
		5-9	942	27	2.9	13	1.4	.	.	3	0.3	.	.	1	0.1	481	51.8
		10-14	596	17	2.9	20	3.4	.	.	.	.	.	.	1	0.2	396	67.0
		15-20	384	13	3.4	26	6.9	.	.	.	.	.	.	.	.	235	62.5
Females	**All cases**		**3447**	**77**	**2.2**	**99**	**2.9**	**4**	**0.1**	**7**	**0.2**	**.**	**.**	**2**	**0.1**	**1778**	**52.1**
	Age at baseline	<18	962	23	2.4	27	2.8	2	0.2	4	0.4	.	.	2	0.2	547	57.3
		18-19	359	4	1.1	5	1.4	.	.	1	0.3	.	.	.	.	179	50.4
		20-24	904	15	1.7	17	1.9	1	0.1	1	0.1	.	.	.	.	422	47.3
		25-29	683	20	2.9	25	3.7	.	.	.	.	.	.	.	.	340	50.1
		30-34	368	5	1.4	13	3.6	.	.	1	0.3	.	.	.	.	186	51.5
		35+	171	10	5.9	12	7.1	1	0.6	.	.	.	.	.	.	104	61.5
	Years since diagnosis	5-9	396	13	3.3	11	2.8	.	.	.	.	.	.	1	0.3	217	55.6
		10-14	1144	22	1.9	28	2.5	1	0.1	5	0.4	.	.	1	0.1	688	60.8
		15-19	1108	16	1.4	37	3.4	3	0.3	2	0.2	.	.	.	.	508	46.1
		20+	799	26	3.3	23	2.9	.	.	.	.	.	.	.	.	365	46.4
	Age at diagnosis	<1	122	2	1.6	14	11.5	2	1.6	1	0.8	.	.	.	.	75	62.0
		1-4	1627	39	2.4	24	1.5	1	0.1	3	0.2	.	.	2	0.1	773	48.0
		5-9	825	8	1.0	17	2.1	.	.	1	0.1	.	.	.	.	391	47.8
		10-14	620	15	2.4	32	5.2	.	.	2	0.3	.	.	.	.	384	62.6
		15-20	253	13	5.2	12	4.9	1	0.4	.	.	.	.	.	.	155	62.5

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**7302**	**2**	**0.0**	**49**	**0.7**	**13**	**0.2**	**7**	**0.1**	**2**	**0.0**	**27**	**0.4**	**.**	**.**
	Age at baseline	<18	2099	.	.	6	0.3	4	0.2	1	0.0	.	.	5	0.2	.	.
		18-19	769	.	.	9	1.2	3	0.4	1	0.1	.	.	2	0.3	.	.
		20-24	1799	2	0.1	15	0.8	3	0.2	.	.	1	0.1	5	0.3	.	.
		25-29	1471	.	.	11	0.8	1	0.1	4	0.3	.	.	7	0.5	.	.
		30-34	779	.	.	7	0.9	2	0.3	1	0.1	.	.	2	0.3	.	.
		35+	385	.	.	1	0.3	.	.	.	.	1	0.3	6	1.6	.	.
	Years since diagnosis	5-9	906	.	.	5	0.6	2	0.2	1	0.1	.	.	3	0.3	.	.
		10-14	2444	.	.	13	0.5	4	0.2	2	0.1	.	.	5	0.2	.	.
		15-19	2246	1	0.0	20	0.9	7	0.3	1	0.0	1	0.0	12	0.5	.	.
		20+	1706	1	0.1	11	0.7	.	.	3	0.2	1	0.1	7	0.4	.	.
	Age at diagnosis	<1	233	.	.	1	0.4	2	0.9	.	.	1	0.4	2	0.9	.	.
		1-4	3449	1	0.0	22	0.6	4	0.1	1	0.0	.	.	10	0.3	.	.
		5-9	1767	1	0.1	13	0.7	3	0.2	4	0.2	.	.	5	0.3	.	.
		10-14	1216	.	.	10	0.8	1	0.1	2	0.2	.	.	1	0.1	.	.
		15-20	637	.	.	3	0.5	3	0.5	.	.	1	0.2	9	1.4	.	.
Males	**All cases**		**3855**	**.**	**.**	**41**	**1.1**	**5**	**0.1**	**5**	**0.1**	**.**	**.**	**13**	**0.3**	**.**	**.**
	Age at baseline	<18	1137	.	.	4	0.4	1	0.1	1	0.1	.	.	2	0.2	.	.
		18-19	410	.	.	8	2.0	.	.	1	0.2	.	.	1	0.2	.	.
		20-24	895	.	.	14	1.6	2	0.2	.	.	.	.	2	0.2	.	.
		25-29	788	.	.	9	1.2	1	0.1	2	0.3	.	.	2	0.3	.	.
		30-34	411	.	.	5	1.3	1	0.3	1	0.3	.	.	2	0.5	.	.
		35+	214	.	.	1	0.5	.	.	.	.	.	.	4	1.9	.	.
	Years since diagnosis	5-9	510	.	.	5	1.0	2	0.4	1	0.2	.	.	1	0.2	.	.
		10-14	1300	.	.	10	0.8	.	.	2	0.2	.	.	3	0.2	.	.
		15-19	1138	.	.	17	1.5	3	0.3	.	.	.	.	6	0.5	.	.
		20+	907	.	.	9	1.0	.	.	2	0.2	.	.	3	0.3	.	.
	Age at diagnosis	<1	111	.	.	1	0.9	.	.	.	.	.	.	1	0.9	.	.
		1-4	1822	.	.	17	0.9	1	0.1	1	0.1	.	.	4	0.2	.	.
		5-9	942	.	.	12	1.3	1	0.1	2	0.2	.	.	1	0.1	.	.
		10-14	596	.	.	8	1.4	1	0.2	2	0.3	.	.	1	0.2	.	.
		15-20	384	.	.	3	0.8	2	0.5	.	.	.	.	6	1.6	.	.
Females	**All cases**		**3447**	**2**	**0.1**	**8**	**0.2**	**8**	**0.2**	**2**	**0.1**	**2**	**0.1**	**14**	**0.4**	**.**	**.**
	Age at baseline	<18	962	.	.	2	0.2	3	0.3	.	.	.	.	3	0.3	.	.
		18-19	359	.	.	1	0.3	3	0.8	.	.	.	.	1	0.3	.	.
		20-24	904	2	0.2	1	0.1	1	0.1	.	.	1	0.1	3	0.3	.	.
		25-29	683	.	.	2	0.3	.	.	2	0.3	.	.	5	0.7	.	.
		30-34	368	.	.	2	0.5	1	0.3	.	.	.	.	.	.	.	.
		35+	171	.	.	.	.	.	.	.	.	1	0.6	2	1.2	.	.
	Years since diagnosis	5-9	396	.	.	.	.	.	.	.	.	.	.	2	0.5	.	.
		10-14	1144	.	.	3	0.3	4	0.4	.	.	.	.	2	0.2	.	.
		15-19	1108	1	0.1	3	0.3	4	0.4	1	0.1	1	0.1	6	0.5	.	.
		20+	799	1	0.1	2	0.3	.	.	1	0.1	1	0.1	4	0.5	.	.
	Age at diagnosis	<1	122	.	.	.	.	2	1.6	.	.	1	0.8	1	0.8	.	.
		1-4	1627	1	0.1	5	0.3	3	0.2	.	.	.	.	6	0.4	.	.
		5-9	825	1	0.1	1	0.1	2	0.2	2	0.2	.	.	4	0.5	.	.
		10-14	620	.	.	2	0.3	.	.	.	.	.	.	.	.	.	.
		15-20	253	.	.	.	.	1	0.4	.	.	1	0.4	3	1.2	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**6109**	**137**	**2.3**	**13**	**0.2**	**1**	**0.0**	**12**	**0.2**	**.**	**.**	**3**	**0.0**	**3193**	**52.8**
	Age at baseline	<18	1814	34	1.9	4	0.2	1	0.1	7	0.4	.	.	2	0.1	1040	57.8
		18-19	666	8	1.2	1	0.2	.	.	3	0.5	.	.	.	.	330	49.9
		20-24	1532	20	1.3	2	0.1	.	.	1	0.1	.	.	.	.	712	46.9
		25-29	1217	49	4.0	2	0.2	.	.	.	.	.	.	1	0.1	615	51.0
		30-34	604	13	2.2	3	0.5	.	.	1	0.2	.	.	.	.	318	54.1
		35+	276	13	4.8	1	0.4	.	.	.	.	.	.	.	.	178	65.2
	Years since diagnosis	5-9	778	26	3.4	2	0.3	.	.	1	0.1	.	.	1	0.1	432	56.3
		10-14	2048	36	1.8	4	0.2	.	.	10	0.5	.	.	1	0.0	1256	61.9
		15-19	1853	24	1.3	4	0.2	1	0.1	1	0.1	.	.	1	0.1	855	46.5
		20+	1430	51	3.6	3	0.2	.	.	.	.	.	.	.	.	650	46.1
	Age at diagnosis	<1	128	2	1.6	3	2.4	1	0.8	1	0.8	.	.	.	.	82	65.1
		1-4	3055	57	1.9	3	0.1	.	.	5	0.2	.	.	1	0.0	1463	48.3
		5-9	1545	33	2.2	2	0.1	.	.	4	0.3	.	.	1	0.1	748	49.0
		10-14	949	25	2.6	3	0.3	.	.	2	0.2	.	.	1	0.1	617	65.4
		15-20	432	20	4.8	2	0.5	.	.	.	.	.	.	.	.	283	67.4
Males	**All cases**		**3252**	**83**	**2.6**	**5**	**0.2**	**.**	**.**	**6**	**0.2**	**.**	**.**	**2**	**0.1**	**1752**	**54.4**
	Age at baseline	<18	982	20	2.0	1	0.1	.	.	4	0.4	.	.	1	0.1	571	58.7
		18-19	358	6	1.7	1	0.3	.	.	2	0.6	.	.	.	.	179	50.3
		20-24	762	9	1.2	1	0.1	.	.	.	.	.	.	.	.	357	47.2
		25-29	665	34	5.1	.	.	.	.	.	.	.	.	1	0.2	362	54.9
		30-34	324	10	3.2	2	0.6	.	.	.	.	.	.	.	.	178	56.9
		35+	161	4	2.5	.	.	.	.	.	.	.	.	.	.	105	65.6
	Years since diagnosis	5-9	439	15	3.4	1	0.2	.	.	1	0.2	.	.	1	0.2	247	57.0
		10-14	1098	25	2.3	1	0.1	.	.	5	0.5	.	.	.	.	678	62.2
		15-19	950	13	1.4	1	0.1	.	.	.	.	.	.	1	0.1	462	49.2
		20+	765	30	4.0	2	0.3	.	.	.	.	.	.	.	.	365	48.3
	Age at diagnosis	<1	64	1	1.6	1	1.6	.	.	.	.	.	.	.	.	39	61.9
		1-4	1603	31	1.9	1	0.1	.	.	3	0.2	.	.	.	.	790	49.7
		5-9	833	26	3.2	2	0.2	.	.	3	0.4	.	.	1	0.1	424	51.6
		10-14	483	15	3.1	.	.	.	.	.	.	.	.	1	0.2	327	67.8
		15-20	269	10	3.8	1	0.4	.	.	.	.	.	.	.	.	172	65.9
Females	**All cases**		**2857**	**54**	**1.9**	**8**	**0.3**	**1**	**0.0**	**6**	**0.2**	**.**	**.**	**1**	**0.0**	**1441**	**51.0**
	Age at baseline	<18	832	14	1.7	3	0.4	1	0.1	3	0.4	.	.	1	0.1	469	56.8
		18-19	308	2	0.7	.	.	.	.	1	0.3	.	.	.	.	151	49.5
		20-24	770	11	1.4	1	0.1	.	.	1	0.1	.	.	.	.	355	46.6
		25-29	552	15	2.7	2	0.4	.	.	.	.	.	.	.	.	253	46.2
		30-34	280	3	1.1	1	0.4	.	.	1	0.4	.	.	.	.	140	50.9
		35+	115	9	8.0	1	0.9	.	.	.	.	.	.	.	.	73	64.6
	Years since diagnosis	5-9	339	11	3.3	1	0.3	.	.	.	.	.	.	.	.	185	55.2
		10-14	950	11	1.2	3	0.3	.	.	5	0.5	.	.	1	0.1	578	61.6
		15-19	903	11	1.2	3	0.3	1	0.1	1	0.1	.	.	.	.	393	43.7
		20+	665	21	3.2	1	0.2	.	.	.	.	.	.	.	.	285	43.6
	Age at diagnosis	<1	64	1	1.6	2	3.1	1	1.6	1	1.6	.	.	.	.	43	68.3
		1-4	1452	26	1.8	2	0.1	.	.	2	0.1	.	.	1	0.1	673	46.8
		5-9	712	7	1.0	.	.	.	.	1	0.1	.	.	.	.	324	46.0
		10-14	466	10	2.2	3	0.6	.	.	2	0.4	.	.	.	.	290	62.8
		15-20	163	10	6.3	1	0.6	.	.	.	.	.	.	.	.	111	69.8

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**6109**	**1**	**0.0**	**44**	**0.7**	**5**	**0.1**	**5**	**0.1**	**1**	**0.0**	**16**	**0.3**	**.**	**.**
	Age at baseline	<18	1814	.	.	5	0.3	1	0.1	.	.	.	.	4	0.2	.	.
		18-19	666	.	.	8	1.2	.	.	1	0.2	.	.	1	0.2	.	.
		20-24	1532	1	0.1	13	0.9	2	0.1	.	.	.	.	4	0.3	.	.
		25-29	1217	.	.	10	0.8	1	0.1	3	0.2	.	.	5	0.4	.	.
		30-34	604	.	.	7	1.2	1	0.2	1	0.2	.	.	1	0.2	.	.
		35+	276	.	.	1	0.4	.	.	.	.	1	0.4	1	0.4	.	.
	Years since diagnosis	5-9	778	.	.	3	0.4	1	0.1	.	.	.	.	2	0.3	.	.
		10-14	2048	.	.	12	0.6	.	.	2	0.1	.	.	3	0.1	.	.
		15-19	1853	1	0.1	18	1.0	4	0.2	.	.	1	0.1	6	0.3	.	.
		20+	1430	.	.	11	0.8	.	.	3	0.2	.	.	5	0.4	.	.
	Age at diagnosis	<1	128	.	.	1	0.8	1	0.8	.	.	.	.	1	0.8	.	.
		1-4	3055	.	.	22	0.7	1	0.0	.	.	.	.	8	0.3	.	.
		5-9	1545	1	0.1	10	0.7	1	0.1	3	0.2	.	.	4	0.3	.	.
		10-14	949	.	.	9	1.0	.	.	2	0.2	.	.	1	0.1	.	.
		15-20	432	.	.	2	0.5	2	0.5	.	.	1	0.2	2	0.5	.	.
Males	**All cases**		**3252**	**.**	**.**	**36**	**1.1**	**2**	**0.1**	**4**	**0.1**	**.**	**.**	**6**	**0.2**	**.**	**.**
	Age at baseline	<18	982	.	.	3	0.3	.	.	.	.	.	.	1	0.1	.	.
		18-19	358	.	.	7	2.0	.	.	1	0.3	.	.	1	0.3	.	.
		20-24	762	.	.	12	1.6	1	0.1	.	.	.	.	1	0.1	.	.
		25-29	665	.	.	8	1.2	1	0.2	2	0.3	.	.	1	0.2	.	.
		30-34	324	.	.	5	1.6	.	.	1	0.3	.	.	1	0.3	.	.
		35+	161	.	.	1	0.6	.	.	.	.	.	.	1	0.6	.	.
	Years since diagnosis	5-9	439	.	.	3	0.7	1	0.2	.	.	.	.	.	.	.	.
		10-14	1098	.	.	9	0.8	.	.	2	0.2	.	.	1	0.1	.	.
		15-19	950	.	.	15	1.6	1	0.1	.	.	.	.	3	0.3	.	.
		20+	765	.	.	9	1.2	.	.	2	0.3	.	.	2	0.3	.	.
	Age at diagnosis	<1	64	.	.	1	1.6	.	.	.	.	.	.	.	.	.	.
		1-4	1603	.	.	17	1.1	.	.	.	.	.	.	4	0.3	.	.
		5-9	833	.	.	9	1.1	1	0.1	2	0.2	.	.	.	.	.	.
		10-14	483	.	.	7	1.5	.	.	2	0.4	.	.	1	0.2	.	.
		15-20	269	.	.	2	0.8	1	0.4	.	.	.	.	1	0.4	.	.
Females	**All cases**		**2857**	**1**	**0.0**	**8**	**0.3**	**3**	**0.1**	**1**	**0.0**	**1**	**0.0**	**10**	**0.4**	**.**	**.**
	Age at baseline	<18	832	.	.	2	0.2	1	0.1	.	.	.	.	3	0.4	.	.
		18-19	308	.	.	1	0.3	.	.	.	.	.	.	.	.	.	.
		20-24	770	1	0.1	1	0.1	1	0.1	.	.	.	.	3	0.4	.	.
		25-29	552	.	.	2	0.4	.	.	1	0.2	.	.	4	0.7	.	.
		30-34	280	.	.	2	0.7	1	0.4	.	.	.	.	.	.	.	.
		35+	115	.	.	.	.	.	.	.	.	1	0.9	.	.	.	.
	Years since diagnosis	5-9	339	.	.	.	.	.	.	.	.	.	.	2	0.6	.	.
		10-14	950	.	.	3	0.3	.	.	.	.	.	.	2	0.2	.	.
		15-19	903	1	0.1	3	0.3	3	0.3	.	.	1	0.1	3	0.3	.	.
		20+	665	.	.	2	0.3	.	.	1	0.2	.	.	3	0.5	.	.
	Age at diagnosis	<1	64	.	.	.	.	1	1.6	.	.	.	.	1	1.6	.	.
		1-4	1452	.	.	5	0.3	1	0.1	.	.	.	.	4	0.3	.	.
		5-9	712	1	0.1	1	0.1	.	.	1	0.1	.	.	4	0.6	.	.
		10-14	466	.	.	2	0.4	.	.	.	.	.	.	.	.	.	.
		15-20	163	.	.	.	.	1	0.6	.	.	1	0.6	1	0.6	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**882**	**28**	**3.2**	**138**	**15.8**	**2**	**0.2**	**1**	**0.1**	**.**	**.**	**4**	**0.5**	**488**	**55.8**
	Age at baseline	<18	225	11	4.9	28	12.6	1	0.4	1	0.4	.	.	4	1.8	135	60.3
		18-19	82	3	3.7	12	14.8	.	.	.	.	.	.	.	.	46	56.8
		20-24	193	3	1.6	24	12.5	1	0.5	.	.	.	.	.	.	98	51.3
		25-29	188	5	2.7	36	19.3	.	.	.	.	.	.	.	.	113	60.4
		30-34	121	4	3.4	23	19.3	.	.	.	.	.	.	.	.	69	58.0
		35+	73	2	2.8	15	21.1	.	.	.	.	.	.	.	.	27	37.5
	Years since diagnosis	5-9	81	.	.	6	7.6	.	.	.	.	.	.	2	2.5	51	63.8
		10-14	307	15	4.9	39	12.8	1	0.3	.	.	.	.	2	0.7	167	54.8
		15-19	304	6	2.0	57	18.8	1	0.3	1	0.3	.	.	.	.	170	56.3
		20+	190	7	3.7	36	19.4	.	.	.	.	.	.	.	.	100	53.5
	Age at diagnosis	<1	90	2	2.2	20	22.5	1	1.1	.	.	.	.	.	.	57	64.0
		1-4	301	16	5.3	40	13.3	1	0.3	1	0.3	.	.	4	1.3	168	56.0
		5-9	166	.	.	19	11.5	.	.	.	.	.	.	.	.	87	53.0
		10-14	186	5	2.7	36	19.9	.	.	.	.	.	.	.	.	113	62.1
		15-20	139	5	3.6	23	16.7	.	.	.	.	.	.	.	.	63	45.3
Males	**All cases**		**430**	**10**	**2.3**	**68**	**16.0**	**.**	**.**	**.**	**.**	**.**	**.**	**3**	**0.7**	**231**	**54.4**
	Age at baseline	<18	122	3	2.5	9	7.5	.	.	.	.	.	.	3	2.5	70	57.9
		18-19	42	1	2.4	7	16.7	.	.	.	.	.	.	.	.	24	57.1
		20-24	92	1	1.1	14	15.2	.	.	.	.	.	.	.	.	50	54.9
		25-29	82	2	2.5	17	21.0	.	.	.	.	.	.	.	.	42	51.9
		30-34	58	2	3.5	13	22.8	.	.	.	.	.	.	.	.	35	61.4
		35+	34	1	3.0	8	24.2	.	.	.	.	.	.	.	.	10	30.3
	Years since diagnosis	5-9	47	.	.	2	4.3	.	.	.	.	.	.	1	2.1	28	59.6
		10-14	152	4	2.7	18	12.0	.	.	.	.	.	.	2	1.3	79	52.7
		15-19	141	3	2.1	31	22.0	.	.	.	.	.	.	.	.	84	60.0
		20+	90	3	3.4	17	19.3	.	.	.	.	.	.	.	.	40	45.5
	Age at diagnosis	<1	39	1	2.6	8	21.1	.	.	.	.	.	.	.	.	28	73.7
		1-4	165	5	3.0	22	13.3	.	.	.	.	.	.	3	1.8	87	52.7
		5-9	76	.	.	8	10.7	.	.	.	.	.	.	.	.	37	50.0
		10-14	75	1	1.4	15	20.8	.	.	.	.	.	.	.	.	44	60.3
		15-20	75	3	4.0	15	20.0	.	.	.	.	.	.	.	.	35	46.7
Females	**All cases**		**452**	**18**	**4.0**	**70**	**15.6**	**2**	**0.4**	**1**	**0.2**	**.**	**.**	**1**	**0.2**	**257**	**57.2**
	Age at baseline	<18	103	8	7.8	19	18.4	1	1.0	1	1.0	.	.	1	1.0	65	63.1
		18-19	40	2	5.1	5	12.8	.	.	.	.	.	.	.	.	22	56.4
		20-24	101	2	2.0	10	10.0	1	1.0	.	.	.	.	.	.	48	48.0
		25-29	106	3	2.8	19	17.9	.	.	.	.	.	.	.	.	71	67.0
		30-34	63	2	3.2	10	16.1	.	.	.	.	.	.	.	.	34	54.8
		35+	39	1	2.6	7	18.4	.	.	.	.	.	.	.	.	17	43.6
	Years since diagnosis	5-9	34	.	.	4	12.1	.	.	.	.	.	.	1	3.0	23	69.7
		10-14	155	11	7.1	21	13.5	1	0.6	.	.	.	.	.	.	88	56.8
		15-19	163	3	1.9	26	16.0	1	0.6	1	0.6	.	.	.	.	86	53.1
		20+	100	4	4.0	19	19.4	.	.	.	.	.	.	.	.	60	60.6
	Age at diagnosis	<1	51	1	2.0	12	23.5	1	2.0	.	.	.	.	.	.	29	56.9
		1-4	136	11	8.1	18	13.3	1	0.7	1	0.7	.	.	1	0.7	81	60.0
		5-9	90	.	.	11	12.2	.	.	.	.	.	.	.	.	50	55.6
		10-14	111	4	3.7	21	19.3	.	.	.	.	.	.	.	.	69	63.3
		15-20	64	2	3.1	8	12.7	.	.	.	.	.	.	.	.	28	43.8

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**882**	**.**	**.**	**1**	**0.1**	**5**	**0.6**	**1**	**0.1**	**1**	**0.1**	**8**	**0.9**	**.**	**.**
	Age at baseline	<18	225	.	.	1	0.4	1	0.4	.	.	.	.	1	0.4	.	.
		18-19	82	.	.	.	.	3	3.7	.	.	.	.	1	1.2	.	.
		20-24	193	.	.	.	.	1	0.5	.	.	1	0.5	1	0.5	.	.
		25-29	188	.	.	.	.	.	.	1	0.5	.	.	1	0.5	.	.
		30-34	121	.	.	.	.	.	.	.	.	.	.	1	0.8	.	.
		35+	73	.	.	.	.	.	.	.	.	.	.	3	4.2	.	.
	Years since diagnosis	5-9	81	.	.	1	1.3	1	1.3	.	.	.	.	.	.	.	.
		10-14	307	.	.	.	.	4	1.3	.	.	.	.	2	0.7	.	.
		15-19	304	.	.	.	.	.	.	1	0.3	.	.	5	1.7	.	.
		20+	190	.	.	.	.	.	.	.	.	1	0.5	1	0.5	.	.
	Age at diagnosis	<1	90	.	.	.	.	1	1.1	.	.	1	1.1	1	1.1	.	.
		1-4	301	.	.	.	.	1	0.3	.	.	.	.	2	0.7	.	.
		5-9	166	.	.	1	0.6	2	1.2	1	0.6	.	.	1	0.6	.	.
		10-14	186	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		15-20	139	.	.	.	.	1	0.7	.	.	.	.	4	2.9	.	.
Males	**All cases**		**430**	**.**	**.**	**1**	**0.2**	**1**	**0.2**	**.**	**.**	**.**	**.**	**4**	**0.9**	**.**	**.**
	Age at baseline	<18	122	.	.	1	0.8	.	.	.	.	.	.	1	0.8	.	.
		18-19	42	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		20-24	92	.	.	.	.	1	1.1	.	.	.	.	1	1.1	.	.
		25-29	82	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		30-34	58	.	.	.	.	.	.	.	.	.	.	1	1.8	.	.
		35+	34	.	.	.	.	.	.	.	.	.	.	1	3.0	.	.
	Years since diagnosis	5-9	47	.	.	1	2.1	1	2.1	.	.	.	.	.	.	.	.
		10-14	152	.	.	.	.	.	.	.	.	.	.	2	1.3	.	.
		15-19	141	.	.	.	.	.	.	.	.	.	.	2	1.4	.	.
		20+	90	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Age at diagnosis	<1	39	.	.	.	.	.	.	.	.	.	.	1	2.6	.	.
		1-4	165	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		5-9	76	.	.	1	1.3	.	.	.	.	.	.	1	1.3	.	.
		10-14	75	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		15-20	75	.	.	.	.	1	1.3	.	.	.	.	2	2.7	.	.
Females	**All cases**		**452**	**.**	**.**	**.**	**.**	**4**	**0.9**	**1**	**0.2**	**1**	**0.2**	**4**	**0.9**	**.**	**.**
	Age at baseline	<18	103	.	.	.	.	1	1.0	.	.	.	.	.	.	.	.
		18-19	40	.	.	.	.	3	7.7	.	.	.	.	1	2.6	.	.
		20-24	101	.	.	.	.	.	.	.	.	1	1.0	.	.	.	.
		25-29	106	.	.	.	.	.	.	1	0.9	.	.	1	0.9	.	.
		30-34	63	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		35+	39	.	.	.	.	.	.	.	.	.	.	2	5.1	.	.
	Years since diagnosis	5-9	34	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		10-14	155	.	.	.	.	4	2.6	.	.	.	.	.	.	.	.
		15-19	163	.	.	.	.	.	.	1	0.6	.	.	3	1.9	.	.
		20+	100	.	.	.	.	.	.	.	.	1	1.0	1	1.0	.	.
	Age at diagnosis	<1	51	.	.	.	.	1	2.0	.	.	1	2.0	.	.	.	.
		1-4	136	.	.	.	.	1	0.7	.	.	.	.	2	1.5	.	.
		5-9	90	.	.	.	.	2	2.2	1	1.1	.	.	.	.	.	.
		10-14	111	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		15-20	64	.	.	.	.	.	.	.	.	.	.	2	3.1	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**4211**	**59**	**1.4**	**4**	**0.1**	**392**	**9.4**	**610**	**14.7**	**.**	**.**	**720**	**17.3**	**567**	**13.6**
	Age at baseline	<18	891	17	1.9	1	0.1	114	12.9	152	17.3	.	.	202	22.9	175	19.8
		18-19	349	3	0.9	2	0.6	68	19.9	47	13.9	.	.	69	20.4	60	17.6
		20-24	1103	20	1.8	1	0.1	114	10.5	145	13.4	.	.	215	19.7	176	16.2
		25-29	1029	13	1.3	.	.	74	7.3	174	17.2	.	.	154	15.2	97	9.5
		30-34	586	3	0.5	.	.	15	2.6	72	12.5	.	.	61	10.5	46	7.9
		35+	253	3	1.2	.	.	7	2.8	20	8.1	.	.	19	7.7	13	5.3
	Years since diagnosis	5-9	430	16	3.8	2	0.5	34	8.0	101	24.0	.	.	109	25.8	87	20.6
		10-14	1427	15	1.1	1	0.1	134	9.5	203	14.4	.	.	255	18.1	189	13.4
		15-19	1335	14	1.1	1	0.1	173	13.2	165	12.6	.	.	194	14.8	172	13.1
		20+	1019	14	1.4	.	.	51	5.1	141	14.0	.	.	162	16.0	119	11.8
	Age at diagnosis	<1	206	8	3.9	.	.	50	24.4	27	13.2	.	.	48	23.4	54	26.3
		1-4	1231	18	1.5	3	0.2	175	14.4	157	13.0	.	.	247	20.3	228	18.8
		5-9	1331	14	1.1	.	.	104	7.9	227	17.3	.	.	247	18.8	173	13.2
		10-14	1005	10	1.0	1	0.1	49	4.9	150	15.1	.	.	144	14.5	87	8.8
		15-20	438	9	2.1	.	.	14	3.3	49	11.6	.	.	34	8.0	25	5.9
Males	**All cases**		**2292**	**34**	**1.5**	**3**	**0.1**	**229**	**10.2**	**375**	**16.7**	**.**	**.**	**429**	**19.0**	**327**	**14.5**
	Age at baseline	<18	494	10	2.1	.	.	65	13.3	97	19.9	.	.	127	26.1	110	22.6
		18-19	177	1	0.6	2	1.2	36	20.8	26	15.1	.	.	38	22.1	30	17.4
		20-24	590	11	1.9	1	0.2	70	12.0	90	15.5	.	.	129	22.2	107	18.4
		25-29	584	9	1.6	.	.	45	7.8	114	19.8	.	.	96	16.6	56	9.7
		30-34	312	1	0.3	.	.	8	2.6	36	11.8	.	.	29	9.4	18	5.8
		35+	135	2	1.6	.	.	5	3.9	12	9.3	.	.	10	7.8	6	4.7
	Years since diagnosis	5-9	244	9	3.8	1	0.4	19	7.9	57	24.1	.	.	62	26.1	52	21.8
		10-14	768	7	0.9	1	0.1	75	9.9	135	17.8	.	.	159	21.0	113	14.9
		15-19	726	9	1.3	1	0.1	102	14.3	102	14.3	.	.	120	16.9	104	14.6
		20+	554	9	1.6	.	.	33	6.0	81	14.9	.	.	88	16.1	58	10.6
	Age at diagnosis	<1	121	5	4.2	.	.	30	25.0	19	15.8	.	.	29	24.2	35	29.2
		1-4	652	9	1.4	2	0.3	99	15.4	98	15.3	.	.	148	23.0	131	20.3
		5-9	741	10	1.4	.	.	65	8.9	141	19.3	.	.	153	21.0	100	13.7
		10-14	531	6	1.1	1	0.2	26	5.0	85	16.3	.	.	78	14.9	45	8.6
		15-20	247	4	1.7	.	.	9	3.8	32	13.5	.	.	21	8.8	16	6.7
Females	**All cases**		**1919**	**25**	**1.3**	**1**	**0.1**	**163**	**8.6**	**235**	**12.4**	**.**	**.**	**291**	**15.3**	**240**	**12.6**
	Age at baseline	<18	397	7	1.8	1	0.3	49	12.4	55	14.0	.	.	75	19.0	65	16.4
		18-19	172	2	1.2	.	.	32	19.0	21	12.6	.	.	31	18.6	30	17.9
		20-24	513	9	1.8	.	.	44	8.7	55	10.9	.	.	86	17.0	69	13.6
		25-29	445	4	0.9	.	.	29	6.6	60	13.7	.	.	58	13.2	41	9.3
		30-34	274	2	0.7	.	.	7	2.6	36	13.2	.	.	32	11.7	28	10.3
		35+	118	1	0.8	.	.	2	1.7	8	6.8	.	.	9	7.6	7	5.9
	Years since diagnosis	5-9	186	7	3.8	1	0.5	15	8.2	44	24.0	.	.	47	25.5	35	19.0
		10-14	659	8	1.2	.	.	59	9.0	68	10.5	.	.	96	14.7	76	11.6
		15-19	609	5	0.8	.	.	71	11.8	63	10.5	.	.	74	12.3	68	11.3
		20+	465	5	1.1	.	.	18	3.9	60	13.0	.	.	74	16.0	61	13.2
	Age at diagnosis	<1	85	3	3.5	.	.	20	23.5	8	9.5	.	.	19	22.4	19	22.4
		1-4	579	9	1.6	1	0.2	76	13.3	59	10.4	.	.	99	17.3	97	17.0
		5-9	590	4	0.7	.	.	39	6.7	86	14.7	.	.	94	16.1	73	12.5
		10-14	474	4	0.8	.	.	23	4.9	65	13.8	.	.	66	14.0	42	8.9
		15-20	191	5	2.7	.	.	5	2.7	17	9.1	.	.	13	6.9	9	4.8

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**4211**	**50**	**1.2**	**74**	**1.8**	**8**	**0.2**	**56**	**1.3**	**355**	**8.6**	**45**	**1.1**	**28**	**0.7**
	Age at baseline	<18	891	17	1.9	22	2.5	4	0.5	28	3.2	122	13.8	15	1.7	19	2.2
		18-19	349	1	0.3	8	2.3	1	0.3	5	1.5	26	7.6	10	2.9	3	0.9
		20-24	1103	12	1.1	21	1.9	.	.	14	1.3	80	7.4	12	1.1	1	0.1
		25-29	1029	11	1.1	13	1.3	3	0.3	6	0.6	79	7.8	7	0.7	5	0.5
		30-34	586	8	1.4	7	1.2	.	.	2	0.3	34	5.9	1	0.2	.	.
		35+	253	1	0.4	3	1.2	.	.	1	0.4	14	5.7	.	.	.	.
	Years since diagnosis	5-9	430	11	2.6	12	2.8	2	0.5	11	2.6	75	17.8	11	2.6	6	1.4
		10-14	1427	16	1.1	14	1.0	5	0.4	22	1.6	124	8.8	14	1.0	19	1.3
		15-19	1335	4	0.3	34	2.6	1	0.1	14	1.1	68	5.2	17	1.3	3	0.2
		20+	1019	19	1.9	14	1.4	.	.	9	0.9	88	8.7	3	0.3	.	.
	Age at diagnosis	<1	206	7	3.4	7	3.4	.	.	9	4.4	38	18.5	4	2.0	7	3.4
		1-4	1231	9	0.7	32	2.6	3	0.2	29	2.4	111	9.1	23	1.9	11	0.9
		5-9	1331	20	1.5	16	1.2	2	0.2	10	0.8	105	8.0	8	0.6	5	0.4
		10-14	1005	10	1.0	14	1.4	2	0.2	7	0.7	71	7.2	6	0.6	2	0.2
		15-20	438	4	0.9	5	1.2	1	0.2	1	0.2	30	7.1	4	0.9	3	0.7
Males	**All cases**		**2292**	**31**	**1.4**	**41**	**1.8**	**3**	**0.1**	**29**	**1.3**	**207**	**9.2**	**28**	**1.2**	**15**	**0.7**
	Age at baseline	<18	494	15	3.1	16	3.3	2	0.4	15	3.1	80	16.4	9	1.8	10	2.1
		18-19	177	1	0.6	1	0.6	.	.	1	0.6	9	5.2	5	2.9	1	0.6
		20-24	590	6	1.0	12	2.1	.	.	7	1.2	43	7.4	9	1.5	1	0.2
		25-29	584	6	1.0	7	1.2	1	0.2	5	0.9	53	9.2	4	0.7	3	0.5
		30-34	312	3	1.0	4	1.3	.	.	1	0.3	15	4.9	1	0.3	.	.
		35+	135	.	.	1	0.8	.	.	.	.	7	5.4	.	.	.	.
	Years since diagnosis	5-9	244	7	2.9	5	2.1	2	0.8	7	2.9	45	18.9	7	2.9	3	1.3
		10-14	768	14	1.8	10	1.3	1	0.1	13	1.7	79	10.4	7	0.9	9	1.2
		15-19	726	3	0.4	18	2.5	.	.	6	0.8	39	5.5	11	1.5	3	0.4
		20+	554	7	1.3	8	1.5	.	.	3	0.5	44	8.1	3	0.5	.	.
	Age at diagnosis	<1	121	5	4.2	6	5.0	.	.	3	2.5	22	18.3	3	2.5	5	4.2
		1-4	652	6	0.9	17	2.6	.	.	14	2.2	62	9.7	15	2.3	5	0.8
		5-9	741	14	1.9	10	1.4	2	0.3	7	1.0	64	8.8	5	0.7	2	0.3
		10-14	531	4	0.8	6	1.1	.	.	4	0.8	38	7.3	2	0.4	1	0.2
		15-20	247	2	0.8	2	0.8	1	0.4	1	0.4	21	8.8	3	1.3	2	0.8
Females	**All cases**		**1919**	**19**	**1.0**	**33**	**1.7**	**5**	**0.3**	**27**	**1.4**	**148**	**7.8**	**17**	**0.9**	**13**	**0.7**
	Age at baseline	<18	397	2	0.5	6	1.5	2	0.5	13	3.3	42	10.6	6	1.5	9	2.3
		18-19	172	.	.	7	4.2	1	0.6	4	2.4	17	10.1	5	3.0	2	1.2
		20-24	513	6	1.2	9	1.8	.	.	7	1.4	37	7.3	3	0.6	.	.
		25-29	445	5	1.1	6	1.4	2	0.5	1	0.2	26	5.9	3	0.7	2	0.5
		30-34	274	5	1.8	3	1.1	.	.	1	0.4	19	7.0	.	.	.	.
		35+	118	1	0.8	2	1.7	.	.	1	0.8	7	5.9	.	.	.	.
	Years since diagnosis	5-9	186	4	2.2	7	3.8	.	.	4	2.2	30	16.3	4	2.2	3	1.6
		10-14	659	2	0.3	4	0.6	4	0.6	9	1.4	45	6.9	7	1.1	10	1.5
		15-19	609	1	0.2	16	2.7	1	0.2	8	1.3	29	4.8	6	1.0	.	.
		20+	465	12	2.6	6	1.3	.	.	6	1.3	44	9.5	.	.	.	.
	Age at diagnosis	<1	85	2	2.4	1	1.2	.	.	6	7.1	16	18.8	1	1.2	2	2.4
		1-4	579	3	0.5	15	2.6	3	0.5	15	2.6	49	8.6	8	1.4	6	1.1
		5-9	590	6	1.0	6	1.0	.	.	3	0.5	41	7.0	3	0.5	3	0.5
		10-14	474	6	1.3	8	1.7	2	0.4	3	0.6	33	7.0	4	0.8	1	0.2
		15-20	191	2	1.1	3	1.6	.	.	.	.	9	4.8	1	0.5	1	0.5

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Astrocytomas

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**2528**	**32**	**1.3**	**.**	**.**	**209**	**8.4**	**218**	**8.7**	**.**	**.**	**109**	**4.4**	**69**	**2.8**
	Age at baseline	<18	493	7	1.4	.	.	73	14.9	59	12.1	.	.	33	6.7	29	5.9
		18-19	202	1	0.5	.	.	39	19.8	13	6.6	.	.	7	3.6	7	3.6
		20-24	668	10	1.5	.	.	58	8.8	49	7.4	.	.	30	4.5	23	3.5
		25-29	636	10	1.6	.	.	34	5.4	58	9.3	.	.	28	4.5	9	1.4
		30-34	360	2	0.6	.	.	3	0.8	30	8.4	.	.	10	2.8	1	0.3
		35+	169	2	1.2	.	.	2	1.2	9	5.4	.	.	1	0.6	.	.
	Years since diagnosis	5-9	220	7	3.2	.	.	12	5.5	39	18.0	.	.	21	9.6	10	4.6
		10-14	840	8	1.0	.	.	85	10.2	83	10.0	.	.	27	3.2	18	2.2
		15-19	784	9	1.2	.	.	87	11.3	46	6.0	.	.	19	2.5	23	3.0
		20+	684	8	1.2	.	.	25	3.7	50	7.4	.	.	42	6.2	18	2.6
	Age at diagnosis	<1	145	5	3.4	.	.	40	27.6	21	14.6	.	.	22	15.2	22	15.2
		1-4	748	8	1.1	.	.	99	13.4	47	6.4	.	.	37	5.0	35	4.7
		5-9	753	6	0.8	.	.	45	6.0	69	9.2	.	.	29	3.9	9	1.2
		10-14	603	5	0.8	.	.	18	3.0	53	8.9	.	.	15	2.5	1	0.2
		15-20	279	8	2.9	.	.	7	2.6	28	10.3	.	.	6	2.2	2	0.7
Males	**All cases**		**1315**	**18**	**1.4**	**.**	**.**	**114**	**8.8**	**132**	**10.2**	**.**	**.**	**69**	**5.3**	**50**	**3.8**
	Age at baseline	<18	258	4	1.6	.	.	38	14.9	41	16.1	.	.	27	10.6	23	9.0
		18-19	102	.	.	.	.	21	21.0	9	9.0	.	.	5	5.0	5	5.0
		20-24	329	5	1.5	.	.	36	11.0	28	8.6	.	.	18	5.5	16	4.9
		25-29	356	6	1.7	.	.	17	4.8	36	10.3	.	.	15	4.2	6	1.7
		30-34	181	1	0.6	.	.	1	0.6	11	6.1	.	.	4	2.2	.	.
		35+	89	2	2.3	.	.	1	1.1	7	8.0	.	.	.	.	.	.
	Years since diagnosis	5-9	118	4	3.4	.	.	6	5.1	22	18.6	.	.	15	12.7	7	5.9
		10-14	438	2	0.5	.	.	45	10.4	57	13.2	.	.	22	5.1	17	3.9
		15-19	396	5	1.3	.	.	47	12.1	28	7.2	.	.	11	2.8	16	4.1
		20+	363	7	1.9	.	.	16	4.4	25	7.0	.	.	21	5.8	10	2.8
	Age at diagnosis	<1	81	4	4.9	.	.	22	27.2	15	18.5	.	.	16	19.8	18	22.2
		1-4	378	4	1.1	.	.	53	14.2	32	8.6	.	.	26	7.0	25	6.7
		5-9	397	4	1.0	.	.	27	6.9	41	10.5	.	.	17	4.3	4	1.0
		10-14	304	2	0.7	.	.	7	2.3	27	9.0	.	.	7	2.3	1	0.3
		15-20	155	4	2.6	.	.	5	3.3	17	11.2	.	.	3	2.0	2	1.3
Females	**All cases**		**1213**	**14**	**1.2**	**.**	**.**	**95**	**7.9**	**86**	**7.2**	**.**	**.**	**40**	**3.3**	**19**	**1.6**
	Age at baseline	<18	235	3	1.3	.	.	35	14.9	18	7.7	.	.	6	2.6	6	2.6
		18-19	100	1	1.0	.	.	18	18.6	4	4.1	.	.	2	2.1	2	2.1
		20-24	339	5	1.5	.	.	22	6.6	21	6.3	.	.	12	3.6	7	2.1
		25-29	280	4	1.4	.	.	17	6.2	22	8.0	.	.	13	4.7	3	1.1
		30-34	179	1	0.6	.	.	2	1.1	19	10.7	.	.	6	3.4	1	0.6
		35+	80	.	.	.	.	1	1.3	2	2.5	.	.	1	1.3	.	.
	Years since diagnosis	5-9	102	3	3.0	.	.	6	6.0	17	17.2	.	.	6	6.0	3	3.0
		10-14	402	6	1.5	.	.	40	10.1	26	6.6	.	.	5	1.3	1	0.3
		15-19	388	4	1.0	.	.	40	10.4	18	4.7	.	.	8	2.1	7	1.8
		20+	321	1	0.3	.	.	9	2.8	25	7.8	.	.	21	6.6	8	2.5
	Age at diagnosis	<1	64	1	1.6	.	.	18	28.1	6	9.5	.	.	6	9.4	4	6.3
		1-4	370	4	1.1	.	.	46	12.6	15	4.1	.	.	11	3.0	10	2.7
		5-9	356	2	0.6	.	.	18	5.1	28	7.9	.	.	12	3.4	5	1.4

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Astrocytomas

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**2528**	**45**	**1.8**	**17**	**0.7**	**.**	**.**	**19**	**0.8**	**171**	**6.8**	**8**	**0.3**	**22**	**0.9**
	Age at baseline	<18	493	14	2.9	8	1.6	.	.	9	1.8	54	11.0	.	.	15	3.1
		18-19	202	1	0.5	3	1.5	.	.	3	1.5	13	6.6	1	0.5	2	1.0
		20-24	668	11	1.7	4	0.6	.	.	4	0.6	38	5.8	4	0.6	1	0.2
		25-29	636	10	1.6	1	0.2	.	.	1	0.2	41	6.5	3	0.5	4	0.6
		30-34	360	8	2.2	.	.	.	.	1	0.3	18	5.0	.	.	.	.
		35+	169	1	0.6	1	0.6	.	.	1	0.6	7	4.2	.	.	.	.
	Years since diagnosis	5-9	220	10	4.6	3	1.4	.	.	3	1.4	27	12.4	1	0.5	4	1.8
		10-14	840	13	1.6	5	0.6	.	.	6	0.7	68	8.2	1	0.1	15	1.8
		15-19	784	3	0.4	5	0.6	.	.	5	0.6	35	4.5	5	0.6	3	0.4
		20+	684	19	2.8	4	0.6	.	.	5	0.7	41	6.0	1	0.1	.	.
	Age at diagnosis	<1	145	7	4.8	4	2.8	.	.	7	4.8	28	19.3	1	0.7	7	4.9
		1-4	748	7	0.9	10	1.4	.	.	9	1.2	42	5.7	3	0.4	7	0.9
		5-9	753	18	2.4	.	.	.	.	.	.	46	6.2	1	0.1	4	0.5
		10-14	603	9	1.5	2	0.3	.	.	3	0.5	36	6.0	2	0.3	2	0.3
		15-20	279	4	1.5	1	0.4	.	.	.	.	19	7.0	1	0.4	2	0.7
Males	**All cases**		**1315**	**27**	**2.1**	**11**	**0.8**	**.**	**.**	**8**	**0.6**	**103**	**7.9**	**4**	**0.3**	**12**	**0.9**
	Age at baseline	<18	258	13	5.1	7	2.7	.	.	5	2.0	40	15.7	.	.	8	3.1
		18-19	102	1	1.0	.	.	.	.	.	.	5	5.0	.	.	1	1.0
		20-24	329	5	1.5	3	0.9	.	.	2	0.6	19	5.8	3	0.9	1	0.3
		25-29	356	5	1.4	.	.	.	.	1	0.3	26	7.4	1	0.3	2	0.6
		30-34	181	3	1.7	.	.	.	.	.	.	8	4.4	.	.	.	.
		35+	89	.	.	1	1.1	.	.	.	.	5	5.7	.	.	.	.
	Years since diagnosis	5-9	118	7	5.9	1	0.8	.	.	2	1.7	16	13.6	1	0.8	2	1.7
		10-14	438	11	2.5	4	0.9	.	.	4	0.9	47	10.9	.	.	7	1.6
		15-19	396	2	0.5	3	0.8	.	.	.	.	21	5.4	2	0.5	3	0.8
		20+	363	7	1.9	3	0.8	.	.	2	0.6	19	5.3	1	0.3	.	.
	Age at diagnosis	<1	81	5	6.2	4	4.9	.	.	2	2.5	17	21.0	1	1.2	5	6.2
		1-4	378	5	1.3	6	1.6	.	.	5	1.3	25	6.7	2	0.5	3	0.8
		5-9	397	12	3.1	.	.	.	.	.	.	31	7.9	.	.	2	0.5
		10-14	304	3	1.0	1	0.3	.	.	1	0.3	17	5.6	.	.	1	0.3
		15-20	155	2	1.3	.	.	.	.	.	.	13	8.6	1	0.7	1	0.7
Females	**All cases**		**1213**	**18**	**1.5**	**6**	**0.5**	**.**	**.**	**11**	**0.9**	**68**	**5.7**	**4**	**0.3**	**10**	**0.8**
	Age at baseline	<18	235	1	0.4	1	0.4	.	.	4	1.7	14	6.0	.	.	7	3.0
		18-19	100	.	.	3	3.1	.	.	3	3.1	8	8.2	1	1.0	1	1.0
		20-24	339	6	1.8	1	0.3	.	.	2	0.6	19	5.7	1	0.3	.	.
		25-29	280	5	1.8	1	0.4	.	.	.	.	15	5.4	2	0.7	2	0.7
		30-34	179	5	2.8	.	.	.	.	1	0.6	10	5.6	.	.	.	.
		35+	80	1	1.3	.	.	.	.	1	1.3	2	2.5	.	.	.	.
	Years since diagnosis	5-9	102	3	3.0	2	2.0	.	.	1	1.0	11	11.0	.	.	2	2.0
		10-14	402	2	0.5	1	0.3	.	.	2	0.5	21	5.3	1	0.3	8	2.0
		15-19	388	1	0.3	2	0.5	.	.	5	1.3	14	3.6	3	0.8	.	.
		20+	321	12	3.8	1	0.3	.	.	3	0.9	22	6.9	.	.	.	.
	Age at diagnosis	<1	64	2	3.1	.	.	.	.	5	7.8	11	17.2	.	.	2	3.2
		1-4	370	2	0.5	4	1.1	.	.	4	1.1	17	4.7	1	0.3	4	1.1
		5-9	356	6	1.7	.	.	.	.	.	.	15	4.2	1	0.3	2	0.6

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Astrocytomas

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
		10-14	299	3	1.0	.	.	11	3.7	26	8.8	.	.	8	2.7	.	.
		15-20	124	4	3.3	.	.	2	1.7	11	9.2	.	.	3	2.5	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Astrocytomas

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
		10-14	299	6	2.0	1	0.3	.	.	2	0.7	19	6.4	2	0.7	1	0.3
		15-20	124	2	1.7	1	0.8	.	.	.	.	6	5.0	.	.	1	0.8

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Medulloblastoma/PNET

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**983**	**19**	**2.0**	**4**	**0.4**	**121**	**12.5**	**335**	**34.8**	**.**	**.**	**508**	**52.6**	**392**	**40.5**
	Age at baseline	<18	233	8	3.5	1	0.4	21	9.1	75	32.8	.	.	130	56.8	105	45.7
		18-19	77	1	1.4	2	2.7	16	21.6	27	36.5	.	.	45	60.8	33	44.6
		20-24	276	6	2.2	1	0.4	39	14.4	88	32.5	.	.	159	58.5	128	47.1
		25-29	236	3	1.3	.	.	31	13.2	95	40.8	.	.	112	48.1	75	32.2
		30-34	127	1	0.8	.	.	9	7.1	40	32.0	.	.	48	38.1	41	32.5
		35+	34	.	.	.	.	5	15.6	10	31.3	.	.	14	43.8	10	31.3
	Years since diagnosis	5-9	120	6	5.2	2	1.7	13	11.2	49	42.2	.	.	62	53.4	54	46.6
		10-14	334	6	1.8	1	0.3	35	10.6	104	31.6	.	.	199	60.5	144	43.6
		15-19	325	4	1.2	1	0.3	51	15.9	108	33.8	.	.	146	45.6	113	35.3
		20+	204	3	1.5	.	.	22	11.0	74	37.2	.	.	101	50.2	81	40.3
	Age at diagnosis	<1	23	1	4.5	.	.	5	22.7	3	13.6	.	.	15	68.2	17	77.3
		1-4	280	8	2.9	3	1.1	43	15.6	87	31.9	.	.	154	56.0	131	47.5
		5-9	402	7	1.8	.	.	44	11.0	139	34.9	.	.	205	51.5	153	38.4
		10-14	220	3	1.4	1	0.5	23	10.6	89	41.2	.	.	114	52.8	74	34.3
		15-20	58	.	.	.	.	6	10.9	17	30.9	.	.	20	36.4	17	30.9
Males	**All cases**		**600**	**12**	**2.0**	**3**	**0.5**	**82**	**13.9**	**215**	**36.8**	**.**	**.**	**315**	**53.7**	**228**	**38.8**
	Age at baseline	<18	141	5	3.6	.	.	15	10.9	50	36.2	.	.	82	59.4	64	46.4
		18-19	44	.	.	2	4.8	9	21.4	14	33.3	.	.	25	59.5	17	40.5
		20-24	178	4	2.3	1	0.6	27	15.4	57	32.8	.	.	101	57.7	83	47.4
		25-29	145	3	2.1	.	.	22	15.3	67	46.9	.	.	76	53.1	44	30.8
		30-34	71	.	.	.	.	5	7.1	23	33.3	.	.	24	34.3	16	22.9
		35+	21	.	.	.	.	4	21.1	4	21.1	.	.	7	36.8	4	21.1
	Years since diagnosis	5-9	73	3	4.3	1	1.4	9	13.0	29	42.0	.	.	35	50.7	33	47.8
		10-14	197	4	2.1	1	0.5	22	11.3	71	36.6	.	.	126	64.9	84	43.3
		15-19	207	3	1.5	1	0.5	36	17.6	68	33.3	.	.	93	45.6	70	34.3
		20+	123	2	1.7	.	.	15	12.5	47	39.8	.	.	61	50.8	41	34.2
	Age at diagnosis	<1	16	1	6.7	.	.	4	26.7	3	20.0	.	.	9	60.0	10	66.7
		1-4	168	4	2.4	2	1.2	29	17.6	58	35.6	.	.	96	58.2	76	46.1
		5-9	256	5	2.0	.	.	31	12.2	92	36.4	.	.	133	52.6	93	36.8
		10-14	125	2	1.6	1	0.8	15	12.3	50	41.0	.	.	65	53.3	40	32.8
		15-20	35	.	.	.	.	3	9.4	12	37.5	.	.	12	37.5	9	28.1
Females	**All cases**		**383**	**7**	**1.8**	**1**	**0.3**	**39**	**10.3**	**120**	**31.7**	**.**	**.**	**193**	**50.9**	**164**	**43.2**
	Age at baseline	<18	92	3	3.3	1	1.1	6	6.5	25	27.5	.	.	48	52.7	41	44.6
		18-19	33	1	3.1	.	.	7	21.9	13	40.6	.	.	20	62.5	16	50.0
		20-24	98	2	2.1	.	.	12	12.5	31	32.0	.	.	58	59.8	45	46.4
		25-29	91	.	.	.	.	9	10.0	28	31.1	.	.	36	40.0	31	34.4
		30-34	56	1	1.8	.	.	4	7.1	17	30.4	.	.	24	42.9	25	44.6
		35+	13	.	.	.	.	1	7.7	6	46.2	.	.	7	53.8	6	46.2
	Years since diagnosis	5-9	47	3	6.4	1	2.1	4	8.5	20	42.6	.	.	27	57.4	21	44.7
		10-14	137	2	1.5	.	.	13	9.6	33	24.4	.	.	73	54.1	60	44.1
		15-19	118	1	0.9	.	.	15	12.9	40	34.5	.	.	53	45.7	43	37.1
		20+	81	1	1.2	.	.	7	8.8	27	33.3	.	.	40	49.4	40	49.4
	Age at diagnosis	<1	7	.	.	.	.	1	14.3	.	.	.	.	6	85.7	7	100.0
		1-4	112	4	3.6	1	0.9	14	12.7	29	26.4	.	.	58	52.7	55	49.5
		5-9	146	2	1.4	.	.	13	9.0	47	32.4	.	.	72	49.7	60	41.4

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Medulloblastoma/PNET

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**983**	**4**	**0.4**	**32**	**3.3**	**7**	**0.7**	**30**	**3.1**	**141**	**14.6**	**30**	**3.1**	**4**	**0.4**
	Age at baseline	<18	233	2	0.9	6	2.6	4	1.7	13	5.7	50	21.7	13	5.7	3	1.3
		18-19	77	.	.	1	1.4	.	.	2	2.7	7	9.5	6	8.1	1	1.4
		20-24	276	1	0.4	11	4.0	.	.	9	3.3	32	11.8	7	2.6	.	.
		25-29	236	1	0.4	6	2.6	3	1.3	5	2.1	30	12.8	3	1.3	.	.
		30-34	127	.	.	6	4.8	.	.	1	0.8	15	11.9	1	0.8	.	.
		35+	34	.	.	2	6.3	.	.	.	.	7	21.9	.	.	.	.
	Years since diagnosis	5-9	120	.	.	5	4.3	2	1.7	6	5.2	33	28.4	9	7.8	2	1.7
		10-14	334	3	0.9	5	1.5	5	1.5	12	3.6	42	12.7	11	3.3	2	0.6
		15-19	325	1	0.3	13	4.0	.	.	9	2.8	28	8.8	8	2.5	.	.
		20+	204	.	.	9	4.5	.	.	3	1.5	38	18.9	2	1.0	.	.
	Age at diagnosis	<1	23	.	.	2	9.1	.	.	2	9.1	5	22.7	1	4.5	.	.
		1-4	280	1	0.4	9	3.3	2	0.7	14	5.1	50	18.2	18	6.5	3	1.1
		5-9	402	2	0.5	8	2.0	2	0.5	9	2.3	50	12.5	4	1.0	1	0.3
		10-14	220	1	0.5	9	4.2	2	0.9	4	1.9	29	13.4	4	1.9	.	.
		15-20	58	.	.	4	7.3	1	1.8	1	1.8	7	12.7	3	5.5	.	.
Males	**All cases**		**600**	**4**	**0.7**	**16**	**2.7**	**3**	**0.5**	**17**	**2.9**	**85**	**14.5**	**20**	**3.4**	**1**	**0.2**
	Age at baseline	<18	141	2	1.4	3	2.2	2	1.4	6	4.3	32	23.2	8	5.8	1	0.7
		18-19	44	.	.	.	.	.	.	1	2.4	2	4.8	3	7.1	.	.
		20-24	178	1	0.6	7	4.0	.	.	5	2.9	20	11.5	6	3.4	.	.
		25-29	145	1	0.7	3	2.1	1	0.7	4	2.8	23	16.0	2	1.4	.	.
		30-34	71	.	.	3	4.3	.	.	1	1.4	6	8.6	1	1.4	.	.
		35+	21	.	.	.	.	.	.	.	.	2	10.5	.	.	.	.
	Years since diagnosis	5-9	73	.	.	2	2.9	2	2.9	3	4.3	21	30.4	6	8.7	1	1.4
		10-14	197	3	1.5	3	1.5	1	0.5	7	3.6	26	13.4	6	3.1	.	.
		15-19	207	1	0.5	7	3.4	.	.	6	2.9	16	7.8	6	2.9	.	.
		20+	123	.	.	4	3.3	.	.	1	0.8	22	18.3	2	1.7	.	.
	Age at diagnosis	<1	16	.	.	1	6.7	.	.	1	6.7	4	26.7	1	6.7	.	.
		1-4	168	1	0.6	4	2.4	.	.	6	3.6	29	17.7	11	6.7	1	0.6
		5-9	256	2	0.8	6	2.4	2	0.8	6	2.4	31	12.2	4	1.6	.	.
		10-14	125	1	0.8	3	2.5	.	.	3	2.5	16	13.1	2	1.6	.	.
		15-20	35	.	.	2	6.3	1	3.1	1	3.1	5	15.6	2	6.3	.	.
Females	**All cases**		**383**	**.**	**.**	**16**	**4.2**	**4**	**1.1**	**13**	**3.4**	**56**	**14.7**	**10**	**2.6**	**3**	**0.8**
	Age at baseline	<18	92	.	.	3	3.3	2	2.2	7	7.6	18	19.6	5	5.4	2	2.2
		18-19	33	.	.	1	3.1	.	.	1	3.1	5	15.6	3	9.4	1	3.1
		20-24	98	.	.	4	4.1	.	.	4	4.1	12	12.4	1	1.0	.	.
		25-29	91	.	.	3	3.3	2	2.2	1	1.1	7	7.8	1	1.1	.	.
		30-34	56	.	.	3	5.4	.	.	.	.	9	16.1	.	.	.	.
		35+	13	.	.	2	15.4	.	.	.	.	5	38.5	.	.	.	.
	Years since diagnosis	5-9	47	.	.	3	6.4	.	.	3	6.4	12	25.5	3	6.4	1	2.1
		10-14	137	.	.	2	1.5	4	2.9	5	3.7	16	11.8	5	3.7	2	1.5
		15-19	118	.	.	6	5.2	.	.	3	2.6	12	10.3	2	1.7	.	.
		20+	81	.	.	5	6.2	.	.	2	2.5	16	19.8	.	.	.	.
	Age at diagnosis	<1	7	.	.	1	14.3	.	.	1	14.3	1	14.3	.	.	.	.
		1-4	112	.	.	5	4.5	2	1.8	8	7.2	21	18.9	7	6.4	2	1.8
		5-9	146	.	.	2	1.4	.	.	3	2.1	19	13.1	.	.	1	0.7

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Medulloblastoma/PNET

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
		10-14	95	1	1.1	.	.	8	8.5	39	41.5	.	.	49	52.1	34	36.2
		15-20	23	.	.	.	.	3	13.0	5	21.7	.	.	8	34.8	8	34.8

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Medulloblastoma/PNET

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
		10-14	95	.	.	6	6.4	2	2.1	1	1.1	13	13.8	2	2.1	.	.
		15-20	23	.	.	2	8.7	.	.	.	.	2	8.7	1	4.3	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**2839**	**69**	**2.5**	**8**	**0.3**	**18**	**0.6**	**145**	**5.2**	**39**	**1.4**	**47**	**1.7**	**849**	**30.4**
	Age at baseline	<18	55	3	5.5	1	1.8	1	1.8	4	7.3	1	1.8	.	.	14	25.5
		18-19	54	.	.	.	.	.	.	2	3.7	.	.	1	1.9	18	33.3
		20-24	330	14	4.3	3	0.9	2	0.6	23	7.1	8	2.5	8	2.5	107	33.0
		25-29	734	20	2.8	2	0.3	6	0.8	42	5.8	5	0.7	9	1.2	275	38.0
		30-34	867	15	1.8	1	0.1	8	0.9	49	5.7	10	1.2	17	2.0	281	33.0
		35+	799	17	2.2	1	0.1	1	0.1	25	3.2	15	1.9	12	1.5	154	19.6
	Years since diagnosis	5-9	222	21	9.6	3	1.4	2	0.9	26	11.9	8	3.7	12	5.5	59	27.1
		10-14	866	20	2.3	3	0.4	8	0.9	49	5.7	7	0.8	8	0.9	333	39.0
		15-19	933	15	1.6	1	0.1	8	0.9	41	4.5	8	0.9	13	1.4	274	29.9
		20+	818	13	1.6	1	0.1	.	.	29	3.6	16	2.0	14	1.7	183	22.7
	Age at diagnosis	1-4	70	.	.	.	.	.	.	.	.	1	1.4	.	.	18	26.1
		5-9	356	3	0.8	1	0.3	1	0.3	21	5.9	4	1.1	1	0.3	111	31.4
		10-14	1029	19	1.9	5	0.5	6	0.6	48	4.7	10	1.0	24	2.4	342	33.7
		15-20	1384	47	3.5	2	0.1	11	0.8	76	5.6	24	1.8	22	1.6	378	27.8
Males	**All cases**		**1468**	**37**	**2.6**	**4**	**0.3**	**10**	**0.7**	**84**	**5.8**	**15**	**1.0**	**21**	**1.4**	**425**	**29.4**
	Age at baseline	<18	42	2	4.8	1	2.4	1	2.4	4	9.5	1	2.4	.	.	12	28.6
		18-19	43	.	.	.	.	.	.	2	4.7	.	.	1	2.3	13	30.2
		20-24	210	8	3.9	2	1.0	.	.	17	8.3	6	2.9	4	2.0	66	32.2
		25-29	402	13	3.3	1	0.3	5	1.3	24	6.0	1	0.3	4	1.0	134	33.9
		30-34	433	11	2.6	.	.	4	0.9	26	6.0	3	0.7	7	1.6	138	32.3
		35+	338	3	0.9	.	.	.	.	11	3.3	4	1.2	5	1.5	62	18.6
	Years since diagnosis	5-9	127	13	10.5	2	1.6	1	0.8	19	15.3	6	4.8	6	4.8	36	29.0
		10-14	440	13	3.0	1	0.2	5	1.1	28	6.4	2	0.5	4	0.9	158	36.4
		15-19	495	8	1.6	1	0.2	4	0.8	24	4.9	3	0.6	6	1.2	148	30.5
		20+	406	3	0.7	.	.	.	.	13	3.2	4	1.0	5	1.2	83	20.6
	Age at diagnosis	1-4	52	.	.	.	.	.	.	.	.	1	2.0	.	.	13	25.5
		5-9	261	2	0.8	1	0.4	1	0.4	18	6.9	1	0.4	.	.	77	29.8
		10-14	525	10	1.9	2	0.4	4	0.8	21	4.0	5	1.0	8	1.5	156	30.1
		15-20	630	25	4.0	1	0.2	5	0.8	45	7.2	8	1.3	13	2.1	179	28.9
Females	**All cases**		**1371**	**32**	**2.4**	**4**	**0.3**	**8**	**0.6**	**61**	**4.5**	**24**	**1.8**	**26**	**1.9**	**424**	**31.4**
	Age at baseline	<18	13	1	7.7	.	.	.	.	.	.	.	.	.	.	2	15.4
		18-19	11	.	.	.	.	.	.	.	.	.	.	.	.	5	45.5
		20-24	120	6	5.0	1	0.8	2	1.7	6	5.0	2	1.7	4	3.4	41	34.5
		25-29	332	7	2.1	1	0.3	1	0.3	18	5.5	4	1.2	5	1.5	141	42.9
		30-34	434	4	0.9	1	0.2	4	0.9	23	5.4	7	1.6	10	2.4	143	33.6
		35+	461	14	3.1	1	0.2	1	0.2	14	3.1	11	2.4	7	1.5	92	20.4
	Years since diagnosis	5-9	95	8	8.5	1	1.1	1	1.1	7	7.4	2	2.1	6	6.4	23	24.5
		10-14	426	7	1.7	2	0.5	3	0.7	21	5.0	5	1.2	4	1.0	175	41.7
		15-19	438	7	1.6	.	.	4	0.9	17	3.9	5	1.2	7	1.6	126	29.2
		20+	412	10	2.5	1	0.2	.	.	16	3.9	12	3.0	9	2.2	100	24.8
	Age at diagnosis	1-4	18	.	.	.	.	.	.	.	.	.	.	.	.	5	27.8
		5-9	95	1	1.1	.	.	.	.	3	3.2	3	3.2	1	1.1	34	35.8
		10-14	504	9	1.8	3	0.6	2	0.4	27	5.4	5	1.0	16	3.2	186	37.5
		15-20	754	22	3.0	1	0.1	6	0.8	31	4.2	16	2.2	9	1.2	199	26.9

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**2839**	**553**	**19.8**	**30**	**1.1**	**34**	**1.2**	**928**	**33.3**	**1713**	**61.5**	**34**	**1.2**	**.**	**.**
	Age at baseline	<18	55	19	35.8	1	1.8	.	.	23	43.4	30	56.6	.	.	.	.
		18-19	54	14	25.9	.	.	.	.	18	33.3	34	63.0	.	.	.	.
		20-24	330	92	28.4	7	2.2	3	0.9	124	38.4	224	69.3	.	.	.	.
		25-29	734	138	19.1	9	1.2	8	1.1	223	30.9	486	67.4	5	0.7	.	.
		30-34	867	157	18.4	9	1.1	14	1.6	273	32.1	533	62.7	14	1.6	.	.
		35+	799	133	16.9	4	0.5	9	1.1	267	34.1	406	51.9	15	1.9	.	.
	Years since diagnosis	5-9	222	77	35.6	4	1.8	5	2.3	95	43.6	137	62.8	3	1.4	.	.
		10-14	866	177	20.8	15	1.8	17	2.0	225	26.4	548	64.4	9	1.1	.	.
		15-19	933	129	14.1	11	1.2	8	0.9	311	34.1	562	61.6	11	1.2	.	.
		20+	818	170	21.0	.	.	4	0.5	297	36.9	466	58.0	11	1.4	.	.
	Age at diagnosis	1-4	70	14	20.3	.	.	.	.	28	40.6	42	60.9	.	.	.	.
		5-9	356	80	22.7	2	0.6	.	.	126	35.9	228	65.0	.	.	.	.
		10-14	1029	223	21.9	10	1.0	4	0.4	376	37.1	699	69.2	4	0.4	.	.
		15-20	1384	236	17.4	18	1.3	30	2.2	398	29.4	744	54.9	30	2.2	.	.
Males	**All cases**		**1468**	**294**	**20.3**	**16**	**1.1**	**19**	**1.3**	**509**	**35.3**	**880**	**61.1**	**20**	**1.4**	**.**	**.**
	Age at baseline	<18	42	15	37.5	1	2.4	.	.	15	37.5	22	55.0	.	.	.	.
		18-19	43	11	25.6	.	.	.	.	15	34.9	27	62.8	.	.	.	.
		20-24	210	57	27.8	4	2.0	2	1.0	79	38.7	139	68.1	.	.	.	.
		25-29	402	72	18.1	6	1.5	4	1.0	134	34.0	258	65.5	4	1.0	.	.
		30-34	433	87	20.3	4	0.9	8	1.9	145	33.8	261	61.0	10	2.3	.	.
		35+	338	52	15.6	1	0.3	5	1.5	121	36.4	173	52.1	6	1.8	.	.
	Years since diagnosis	5-9	127	45	36.3	3	2.4	2	1.6	60	48.4	79	63.7	2	1.6	.	.
		10-14	440	90	20.8	9	2.1	10	2.3	119	27.5	273	63.2	6	1.4	.	.
		15-19	495	70	14.3	4	0.8	4	0.8	174	35.9	296	61.2	5	1.0	.	.
		20+	406	89	22.1	.	.	3	0.7	156	38.9	232	57.9	7	1.7	.	.
	Age at diagnosis	1-4	52	12	23.5	.	.	.	.	20	39.2	31	60.8	.	.	.	.
		5-9	261	60	23.3	1	0.4	.	.	93	36.3	166	64.8	.	.	.	.
		10-14	525	122	23.5	6	1.2	2	0.4	203	39.3	339	65.7	3	0.6	.	.
		15-20	630	100	16.1	9	1.4	17	2.7	193	31.2	344	55.7	17	2.7	.	.
Females	**All cases**		**1371**	**259**	**19.3**	**14**	**1.0**	**15**	**1.1**	**419**	**31.2**	**833**	**62.0**	**14**	**1.0**	**.**	**.**
	Age at baseline	<18	13	4	30.8	.	.	.	.	8	61.5	8	61.5	.	.	.	.
		18-19	11	3	27.3	.	.	.	.	3	27.3	7	63.6	.	.	.	.
		20-24	120	35	29.4	3	2.5	1	0.8	45	37.8	85	71.4	.	.	.	.
		25-29	332	66	20.3	3	0.9	4	1.2	89	27.1	228	69.7	1	0.3	.	.
		30-34	434	70	16.6	5	1.2	6	1.4	128	30.4	272	64.5	4	0.9	.	.
		35+	461	81	17.9	3	0.7	4	0.9	146	32.3	233	51.7	9	2.0	.	.
	Years since diagnosis	5-9	95	32	34.8	1	1.1	3	3.2	35	37.2	58	61.7	1	1.1	.	.
		10-14	426	87	20.9	6	1.4	7	1.7	106	25.3	275	65.6	3	0.7	.	.
		15-19	438	59	13.8	7	1.6	4	0.9	137	32.0	266	62.1	6	1.4	.	.
		20+	412	81	20.0	.	.	1	0.2	141	35.0	234	58.2	4	1.0	.	.
	Age at diagnosis	1-4	18	2	11.1	.	.	.	.	8	44.4	11	61.1	.	.	.	.
		5-9	95	20	21.1	1	1.1	.	.	33	34.7	62	65.3	.	.	.	.
		10-14	504	101	20.3	4	0.8	2	0.4	173	34.9	360	72.9	1	0.2	.	.
		15-20	754	136	18.6	9	1.2	13	1.8	205	27.9	400	54.3	13	1.8	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**1933**	**228**	**11.9**	**4**	**0.2**	**42**	**2.2**	**31**	**1.6**	**3**	**0.2**	**53**	**2.8**	**1693**	**88.7**
	Age at baseline	<18	200	24	12.1	.	.	.	.	6	3.0	.	.	4	2.0	182	92.4
		18-19	119	22	18.6	.	.	3	2.5	3	2.5	.	.	2	1.7	112	94.9
		20-24	409	39	9.6	1	0.2	9	2.2	8	2.0	.	.	12	2.9	363	89.4
		25-29	533	66	12.5	1	0.2	15	2.8	5	0.9	1	0.2	15	2.8	468	89.5
		30-34	443	52	11.8	2	0.5	13	2.9	8	1.8	1	0.2	15	3.4	384	87.1
		35+	229	25	11.1	.	.	2	0.9	1	0.4	1	0.4	5	2.2	184	82.1
	Years since diagnosis	5-9	132	20	15.2	.	.	1	0.8	3	2.3	.	.	5	3.8	117	89.3
		10-14	608	70	11.6	.	.	13	2.1	8	1.3	.	.	8	1.3	542	90.2
		15-19	665	80	12.1	4	0.6	23	3.5	13	2.0	1	0.2	28	4.2	585	88.9
		20+	528	58	11.1	.	.	5	1.0	7	1.3	2	0.4	12	2.3	449	86.5
	Age at diagnosis	<1	12	3	25.0	.	.	.	.	.	.	.	.	1	8.3	9	75.0
		1-4	320	38	12.0	1	0.3	3	0.9	8	2.5	1	0.3	12	3.8	287	92.0
		5-9	588	63	10.8	1	0.2	10	1.7	12	2.1	.	.	10	1.7	524	89.9
		10-14	604	82	13.6	1	0.2	20	3.3	6	1.0	1	0.2	17	2.8	544	90.7
		15-20	409	42	10.4	1	0.2	9	2.2	5	1.2	1	0.2	13	3.2	329	81.8
Males	**All cases**		**1304**	**144**	**11.1**	**3**	**0.2**	**29**	**2.2**	**22**	**1.7**	**2**	**0.2**	**37**	**2.9**	**1147**	**88.9**
	Age at baseline	<18	138	12	8.8	.	.	.	.	5	3.6	.	.	3	2.2	126	93.3
		18-19	87	16	18.6	.	.	1	1.2	3	3.5	.	.	1	1.2	83	96.5
		20-24	268	26	9.7	1	0.4	7	2.6	4	1.5	.	.	8	3.0	239	89.5
		25-29	372	44	12.0	1	0.3	13	3.5	4	1.1	.	.	10	2.7	332	90.5
		30-34	291	32	11.0	1	0.3	8	2.8	5	1.7	1	0.3	11	3.8	250	86.5
		35+	148	14	9.5	.	.	.	.	1	0.7	1	0.7	4	2.7	117	80.1
	Years since diagnosis	5-9	99	12	12.1	.	.	1	1.0	2	2.0	.	.	3	3.0	90	91.8
		10-14	412	46	11.2	.	.	11	2.7	6	1.5	.	.	5	1.2	372	91.2
		15-19	433	50	11.6	3	0.7	13	3.0	9	2.1	1	0.2	19	4.4	381	88.6
		20+	360	36	10.1	.	.	4	1.1	5	1.4	1	0.3	10	2.8	304	85.9
	Age at diagnosis	<1	3	.	.	.	.	.	.	.	.	.	.	.	.	1	33.3
		1-4	215	26	12.3	1	0.5	2	0.9	6	2.8	.	.	10	4.7	191	91.4
		5-9	411	40	9.8	1	0.2	7	1.7	10	2.5	.	.	8	2.0	371	91.2
		10-14	412	56	13.6	.	.	14	3.4	3	0.7	1	0.2	11	2.7	374	90.8
		15-20	263	22	8.4	1	0.4	6	2.3	3	1.1	1	0.4	8	3.1	210	81.1
Females	**All cases**		**629**	**84**	**13.5**	**1**	**0.2**	**13**	**2.1**	**9**	**1.4**	**1**	**0.2**	**16**	**2.6**	**546**	**88.2**
	Age at baseline	<18	62	12	19.4	.	.	.	.	1	1.6	.	.	1	1.6	56	90.3
		18-19	32	6	18.8	.	.	2	6.3	.	.	.	.	1	3.1	29	90.6
		20-24	141	13	9.3	.	.	2	1.4	4	2.9	.	.	4	2.9	124	89.2
		25-29	161	22	13.8	.	.	2	1.3	1	0.6	1	0.6	5	3.1	136	87.2
		30-34	152	20	13.2	1	0.7	5	3.3	3	2.0	.	.	4	2.6	134	88.2
		35+	81	11	13.9	.	.	2	2.5	.	.	.	.	1	1.3	67	85.9
	Years since diagnosis	5-9	33	8	24.2	.	.	.	.	1	3.0	.	.	2	6.1	27	81.8
		10-14	196	24	12.3	.	.	2	1.0	2	1.0	.	.	3	1.5	170	88.1
		15-19	232	30	13.1	1	0.4	10	4.4	4	1.7	.	.	9	3.9	204	89.5
		20+	168	22	13.2	.	.	1	0.6	2	1.2	1	0.6	2	1.2	145	87.9
	Age at diagnosis	<1	9	3	33.3	.	.	.	.	.	.	.	.	1	11.1	8	88.9
		1-4	105	12	11.5	.	.	1	1.0	2	1.9	1	1.0	2	1.9	96	93.2
		5-9	177	23	13.0	.	.	3	1.7	2	1.1	.	.	2	1.1	153	86.9
		10-14	192	26	13.7	1	0.5	6	3.2	3	1.6	.	.	6	3.2	170	90.4
		15-20	146	20	13.9	.	.	3	2.1	2	1.4	.	.	5	3.5	119	83.2

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**1933**	**3**	**0.2**	**91**	**4.7**	**3**	**0.2**	**23**	**1.2**	**21**	**1.1**	**26**	**1.4**	**.**	**.**
	Age at baseline	<18	200	.	.	5	2.5	1	0.5	3	1.5	.	.	2	1.0	.	.
		18-19	119	.	.	8	6.8	.	.	2	1.7	1	0.8	1	0.8	.	.
		20-24	409	1	0.2	20	4.9	1	0.2	6	1.5	3	0.7	6	1.5	.	.
		25-29	533	1	0.2	28	5.3	.	.	5	0.9	2	0.4	5	0.9	.	.
		30-34	443	1	0.2	26	5.9	.	.	5	1.1	9	2.0	10	2.3	.	.
		35+	229	.	.	4	1.8	1	0.4	2	0.9	6	2.7	2	0.9	.	.
	Years since diagnosis	5-9	132	.	.	3	2.3	1	0.8	2	1.5	2	1.5	.	.	.	.
		10-14	608	2	0.3	26	4.3	1	0.2	5	0.8	4	0.7	4	0.7	.	.
		15-19	665	1	0.2	53	8.0	1	0.2	9	1.4	9	1.4	17	2.6	.	.
		20+	528	.	.	9	1.7	.	.	7	1.3	6	1.1	5	1.0	.	.
	Age at diagnosis	<1	12	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		1-4	320	.	.	18	5.7	.	.	5	1.6	1	0.3	5	1.6	.	.
		5-9	588	.	.	27	4.6	.	.	6	1.0	2	0.3	7	1.2	.	.
		10-14	604	2	0.3	24	4.0	2	0.3	9	1.5	6	1.0	6	1.0	.	.
		15-20	409	1	0.2	22	5.4	1	0.2	3	0.7	12	3.0	8	2.0	.	.
Males	**All cases**		**1304**	**.**	**.**	**59**	**4.5**	**3**	**0.2**	**11**	**0.8**	**11**	**0.8**	**16**	**1.2**	**.**	**.**
	Age at baseline	<18	138	.	.	3	2.2	1	0.7	2	1.5	.	.	1	0.7	.	.
		18-19	87	.	.	5	5.8	.	.	2	2.3	1	1.2	.	.	.	.
		20-24	268	.	.	14	5.2	1	0.4	2	0.7	1	0.4	4	1.5	.	.
		25-29	372	.	.	19	5.1	.	.	2	0.5	1	0.3	5	1.4	.	.
		30-34	291	.	.	16	5.5	.	.	2	0.7	4	1.4	5	1.7	.	.
		35+	148	.	.	2	1.4	1	0.7	1	0.7	4	2.7	1	0.7	.	.
	Years since diagnosis	5-9	99	.	.	1	1.0	1	1.0	1	1.0	1	1.0	.	.	.	.
		10-14	412	.	.	23	5.6	1	0.2	2	0.5	2	0.5	1	0.2	.	.
		15-19	433	.	.	29	6.7	1	0.2	6	1.4	5	1.2	10	2.3	.	.
		20+	360	.	.	6	1.7	.	.	2	0.6	3	0.8	5	1.4	.	.
	Age at diagnosis	<1	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		1-4	215	.	.	13	6.1	.	.	4	1.9	.	.	3	1.4	.	.
		5-9	411	.	.	18	4.4	.	.	1	0.2	1	0.2	5	1.2	.	.
		10-14	412	.	.	15	3.6	2	0.5	5	1.2	3	0.7	5	1.2	.	.
		15-20	263	.	.	13	5.0	1	0.4	1	0.4	7	2.7	3	1.1	.	.
Females	**All cases**		**629**	**3**	**0.5**	**32**	**5.1**	**.**	**.**	**12**	**1.9**	**10**	**1.6**	**10**	**1.6**	**.**	**.**
	Age at baseline	<18	62	.	.	2	3.2	.	.	1	1.6	.	.	1	1.6	.	.
		18-19	32	.	.	3	9.4	.	.	.	.	.	.	1	3.1	.	.
		20-24	141	1	0.7	6	4.3	.	.	4	2.9	2	1.4	2	1.4	.	.
		25-29	161	1	0.6	9	5.7	.	.	3	1.9	1	0.6	.	.	.	.
		30-34	152	1	0.7	10	6.6	.	.	3	2.0	5	3.3	5	3.3	.	.
		35+	81	.	.	2	2.5	.	.	1	1.3	2	2.6	1	1.3	.	.
	Years since diagnosis	5-9	33	.	.	2	6.1	.	.	1	3.0	1	3.0	.	.	.	.
		10-14	196	2	1.0	3	1.5	.	.	3	1.5	2	1.0	3	1.5	.	.
		15-19	232	1	0.4	24	10.5	.	.	3	1.3	4	1.8	7	3.1	.	.
		20+	168	.	.	3	1.8	.	.	5	3.0	3	1.8	.	.	.	.
	Age at diagnosis	<1	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		1-4	105	.	.	5	4.8	.	.	1	1.0	1	1.0	2	1.9	.	.
		5-9	177	.	.	9	5.1	.	.	5	2.8	1	0.6	2	1.1	.	.
		10-14	192	2	1.1	9	4.7	.	.	4	2.1	3	1.6	1	0.5	.	.
		15-20	146	1	0.7	9	6.3	.	.	2	1.4	5	3.5	5	3.5	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**2087**	**.**	**.**	**3**	**0.1**	**62**	**3.0**	**.**	**.**	**.**	**.**	**17**	**0.8**	**185**	**8.9**
	Age at baseline	<18	762	.	.	1	0.1	14	1.8	.	.	.	.	13	1.7	70	9.2
		18-19	276	.	.	.	.	15	5.4	.	.	.	.	.	.	28	10.1
		20-24	616	.	.	1	0.2	16	2.6	.	.	.	.	3	0.5	52	8.5
		25-29	347	.	.	1	0.3	16	4.6	.	.	.	.	1	0.3	27	7.8
		30-34	69	.	.	.	.	1	1.5	.	.	.	.	.	.	5	7.4
		35+	17	.	.	.	.	.	.	.	.	.	.	.	.	3	17.6
	Years since diagnosis	5-9	168	.	.	1	0.6	6	3.6	.	.	.	.	9	5.4	18	10.7
		10-14	674	.	.	.	.	15	2.2	.	.	.	.	6	0.9	73	10.8
		15-19	685	.	.	1	0.1	34	5.0	.	.	.	.	1	0.1	70	10.2
		20+	560	.	.	1	0.2	7	1.3	.	.	.	.	1	0.2	24	4.3
	Age at diagnosis	<1	305	.	.	.	.	5	1.6	.	.	.	.	2	0.7	15	4.9
		1-4	1270	.	.	.	.	27	2.1	.	.	.	.	9	0.7	95	7.5
		5-9	436	.	.	3	0.7	24	5.5	.	.	.	.	4	0.9	58	13.3
		10-14	56	.	.	.	.	4	7.3	.	.	.	.	1	1.8	12	22.2
		15-20	20	.	.	.	.	2	10.0	.	.	.	.	1	5.0	5	25.0
Males	**All cases**		**924**	**.**	**.**	**2**	**0.2**	**31**	**3.4**	**.**	**.**	**.**	**.**	**7**	**0.8**	**81**	**8.8**
	Age at baseline	<18	370	.	.	1	0.3	9	2.4	.	.	.	.	7	1.9	39	10.5
		18-19	111	.	.	.	.	7	6.3	.	.	.	.	.	.	12	10.8
		20-24	255	.	.	.	.	4	1.6	.	.	.	.	.	.	15	5.9
		25-29	152	.	.	1	0.7	11	7.2	.	.	.	.	.	.	13	8.6
		30-34	29	.	.	.	.	.	.	.	.	.	.	.	.	1	3.4
		35+	7	.	.	.	.	.	.	.	.	.	.	.	.	1	14.3
	Years since diagnosis	5-9	75	.	.	1	1.3	4	5.3	.	.	.	.	4	5.3	12	16.0
		10-14	306	.	.	.	.	4	1.3	.	.	.	.	3	1.0	30	9.8
		15-19	292	.	.	.	.	16	5.5	.	.	.	.	.	.	28	9.6
		20+	251	.	.	1	0.4	7	2.8	.	.	.	.	.	.	11	4.4
	Age at diagnosis	<1	152	.	.	.	.	4	2.6	.	.	.	.	.	.	7	4.6
		1-4	567	.	.	.	.	13	2.3	.	.	.	.	4	0.7	45	7.9
		5-9	177	.	.	2	1.1	14	7.9	.	.	.	.	2	1.1	22	12.4
		10-14	20	.	.	.	.	.	.	.	.	.	.	1	5.0	5	25.0
		15-20	8	.	.	.	.	.	.	.	.	.	.	.	.	2	25.0
Females	**All cases**		**1163**	**.**	**.**	**1**	**0.1**	**31**	**2.7**	**.**	**.**	**.**	**.**	**10**	**0.9**	**104**	**9.0**
	Age at baseline	<18	392	.	.	.	.	5	1.3	.	.	.	.	6	1.5	31	7.9
		18-19	165	.	.	.	.	8	4.8	.	.	.	.	.	.	16	9.7
		20-24	361	.	.	1	0.3	12	3.3	.	.	.	.	3	0.8	37	10.2
		25-29	195	.	.	.	.	5	2.6	.	.	.	.	1	0.5	14	7.3
		30-34	40	.	.	.	.	1	2.6	.	.	.	.	.	.	4	10.3
		35+	10	.	.	.	.	.	.	.	.	.	.	.	.	2	20.0
	Years since diagnosis	5-9	93	.	.	.	.	2	2.2	.	.	.	.	5	5.4	6	6.5
		10-14	368	.	.	.	.	11	3.0	.	.	.	.	3	0.8	43	11.7
		15-19	393	.	.	1	0.3	18	4.6	.	.	.	.	1	0.3	42	10.7
		20+	309	.	.	.	.	.	.	.	.	.	.	1	0.3	13	4.2
	Age at diagnosis	<1	153	.	.	.	.	1	0.7	.	.	.	.	2	1.3	8	5.2
		1-4	703	.	.	.	.	14	2.0	.	.	.	.	5	0.7	50	7.1
		5-9	259	.	.	1	0.4	10	3.9	.	.	.	.	2	0.8	36	13.9
		10-14	36	.	.	.	.	4	11.4	.	.	.	.	.	.	7	20.6
		15-20	12	.	.	.	.	2	16.7	.	.	.	.	1	8.3	3	25.0

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**2087**	**2**	**0.1**	**63**	**3.0**	**4**	**0.2**	**1**	**0.0**	**.**	**.**	**8**	**0.4**	**.**	**.**
	Age at baseline	<18	762	.	.	24	3.1	1	0.1	.	.	.	.	2	0.3	.	.
		18-19	276	.	.	8	2.9	.	.	.	.	.	.	.	.	.	.
		20-24	616	2	0.3	15	2.4	2	0.3	1	0.2	.	.	4	0.7	.	.
		25-29	347	.	.	14	4.0	1	0.3	.	.	.	.	2	0.6	.	.
		30-34	69	.	.	1	1.5	.	.	.	.	.	.	.	.	.	.
		35+	17	.	.	1	5.9	.	.	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	168	1	0.6	14	8.3	1	0.6	.	.	.	.	1	0.6	.	.
		10-14	674	.	.	17	2.5	1	0.1	.	.	.	.	1	0.1	.	.
		15-19	685	1	0.1	17	2.5	2	0.3	1	0.1	.	.	5	0.7	.	.
		20+	560	.	.	15	2.7	.	.	.	.	.	.	1	0.2	.	.
	Age at diagnosis	<1	305	.	.	6	2.0	.	.	.	.	.	.	1	0.3	.	.
		1-4	1270	.	.	34	2.7	.	.	1	0.1	.	.	3	0.2	.	.
		5-9	436	1	0.2	16	3.7	4	0.9	.	.	.	.	4	0.9	.	.
		10-14	56	.	.	3	5.5	.	.	.	.	.	.	.	.	.	.
		15-20	20	1	5.0	4	20.0	.	.	.	.	.	.	.	.	.	.
Males	**All cases**		**924**	**1**	**0.1**	**29**	**3.1**	**2**	**0.2**	**.**	**.**	**.**	**.**	**2**	**0.2**	**.**	**.**
	Age at baseline	<18	370	.	.	14	3.8	1	0.3	.	.	.	.	1	0.3	.	.
		18-19	111	.	.	4	3.6	.	.	.	.	.	.	.	.	.	.
		20-24	255	1	0.4	5	2.0	.	.	.	.	.	.	.	.	.	.
		25-29	152	.	.	6	3.9	1	0.7	.	.	.	.	1	0.7	.	.
		30-34	29	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		35+	7	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	75	.	.	7	9.3	1	1.3	.	.	.	.	1	1.3	.	.
		10-14	306	.	.	7	2.3	.	.	.	.	.	.	.	.	.	.
		15-19	292	1	0.3	8	2.7	1	0.3	.	.	.	.	1	0.3	.	.
		20+	251	.	.	7	2.8	.	.	.	.	.	.	.	.	.	.
	Age at diagnosis	<1	152	.	.	5	3.3	.	.	.	.	.	.	.	.	.	.
		1-4	567	.	.	16	2.8	.	.	.	.	.	.	1	0.2	.	.
		5-9	177	1	0.6	7	4.0	2	1.1	.	.	.	.	1	0.6	.	.
		10-14	20	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		15-20	8	.	.	1	12.5	.	.	.	.	.	.	.	.	.	.
Females	**All cases**		**1163**	**1**	**0.1**	**34**	**2.9**	**2**	**0.2**	**1**	**0.1**	**.**	**.**	**6**	**0.5**	**.**	**.**
	Age at baseline	<18	392	.	.	10	2.6	.	.	.	.	.	.	1	0.3	.	.
		18-19	165	.	.	4	2.4	.	.	.	.	.	.	.	.	.	.
		20-24	361	1	0.3	10	2.8	2	0.6	1	0.3	.	.	4	1.1	.	.
		25-29	195	.	.	8	4.1	.	.	.	.	.	.	1	0.5	.	.
		30-34	40	.	.	1	2.6	.	.	.	.	.	.	.	.	.	.
		35+	10	.	.	1	10.0	.	.	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	93	1	1.1	7	7.5	.	.	.	.	.	.	.	.	.	.
		10-14	368	.	.	10	2.7	1	0.3	.	.	.	.	1	0.3	.	.
		15-19	393	.	.	9	2.3	1	0.3	1	0.3	.	.	4	1.0	.	.
		20+	309	.	.	8	2.6	.	.	.	.	.	.	1	0.3	.	.
	Age at diagnosis	<1	153	.	.	1	0.7	.	.	.	.	.	.	1	0.7	.	.
		1-4	703	.	.	18	2.6	.	.	1	0.1	.	.	2	0.3	.	.
		5-9	259	.	.	9	3.5	2	0.8	.	.	.	.	3	1.2	.	.
		10-14	36	.	.	3	8.6	.	.	.	.	.	.	.	.	.	.
		15-20	12	1	8.3	3	25.0	.	.	.	.	.	.	.	.	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Neuroblastoma

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**1811**	**3**	**0.2**	**1**	**0.1**	**248**	**13.8**	**1**	**0.1**	**.**	**.**	**508**	**28.4**	**1045**	**58.6**
	Age at baseline	<18	890	1	0.1	.	.	158	17.9	1	0.1	.	.	243	27.5	517	59.0
		18-19	216	.	.	.	.	21	9.7	.	.	.	.	56	26.2	122	56.7
		20-24	511	2	0.4	1	0.2	56	11.0	.	.	.	.	161	31.8	301	59.6
		25-29	154	.	.	.	.	12	8.0	.	.	.	.	37	24.8	80	54.4
		30-34	34	.	.	.	.	1	3.1	.	.	.	.	9	28.1	22	68.8
		35+	6	.	.	.	.	.	.	.	.	.	.	2	33.3	3	50.0
	Years since diagnosis	5-9	152	.	.	.	.	33	22.0	.	.	.	.	74	49.3	107	71.3
		10-14	559	.	.	.	.	105	18.8	1	0.2	.	.	138	24.8	315	56.7
		15-19	594	1	0.2	1	0.2	75	12.8	.	.	.	.	164	27.9	330	56.7
		20+	506	2	0.4	.	.	35	7.0	.	.	.	.	132	26.6	293	59.3
	Age at diagnosis	<1	917	1	0.1	.	.	73	8.0	1	0.1	.	.	160	17.5	498	55.1
		1-4	713	2	0.3	1	0.1	139	19.7	.	.	.	.	277	39.4	438	62.4
		5-9	137	.	.	.	.	29	21.5	.	.	.	.	54	40.6	85	63.9
		10-14	27	.	.	.	.	3	11.5	.	.	.	.	8	30.8	14	53.8
		15-20	17	.	.	.	.	4	23.5	.	.	.	.	9	52.9	10	58.8
Males	**All cases**		**876**	**.**	**.**	**1**	**0.1**	**136**	**15.7**	**.**	**.**	**.**	**.**	**255**	**29.4**	**517**	**60.0**
	Age at baseline	<18	441	.	.	.	.	94	21.5	.	.	.	.	122	27.9	266	61.3
		18-19	94	.	.	.	.	10	10.6	.	.	.	.	28	29.8	57	60.6
		20-24	259	.	.	1	0.4	28	10.9	.	.	.	.	80	31.3	140	54.9
		25-29	66	.	.	.	.	4	6.3	.	.	.	.	20	31.3	41	65.1
		30-34	14	.	.	.	.	.	.	.	.	.	.	4	28.6	12	85.7
		35+	2	.	.	.	.	.	.	.	.	.	.	1	50.0	1	50.0
	Years since diagnosis	5-9	72	.	.	.	.	15	21.1	.	.	.	.	36	50.7	50	70.4
		10-14	275	.	.	.	.	65	23.6	.	.	.	.	70	25.5	164	60.1
		15-19	284	.	.	1	0.4	41	14.6	.	.	.	.	82	29.2	162	58.3
		20+	245	.	.	.	.	15	6.2	.	.	.	.	67	27.8	141	58.8
	Age at diagnosis	<1	472	.	.	.	.	42	8.9	.	.	.	.	76	16.2	253	54.3
		1-4	320	.	.	1	0.3	75	23.8	.	.	.	.	138	43.9	206	65.6
		5-9	68	.	.	.	.	18	26.9	.	.	.	.	34	50.7	49	74.2
		10-14	10	.	.	.	.	1	10.0	.	.	.	.	3	30.0	5	50.0
		15-20	6	.	.	.	.	.	.	.	.	.	.	4	66.7	4	66.7
Females	**All cases**		**935**	**3**	**0.3**	**.**	**.**	**112**	**12.1**	**1**	**0.1**	**.**	**.**	**253**	**27.4**	**528**	**57.4**
	Age at baseline	<18	449	1	0.2	.	.	64	14.3	1	0.2	.	.	121	27.1	251	56.7
		18-19	122	.	.	.	.	11	9.0	.	.	.	.	28	23.3	65	53.7
		20-24	252	2	0.8	.	.	28	11.2	.	.	.	.	81	32.3	161	64.4
		25-29	88	.	.	.	.	8	9.3	.	.	.	.	17	20.0	39	46.4
		30-34	20	.	.	.	.	1	5.6	.	.	.	.	5	27.8	10	55.6
		35+	4	.	.	.	.	.	.	.	.	.	.	1	25.0	2	50.0
	Years since diagnosis	5-9	80	.	.	.	.	18	22.8	.	.	.	.	38	48.1	57	72.2
		10-14	284	.	.	.	.	40	14.1	1	0.4	.	.	68	24.1	151	53.4
		15-19	310	1	0.3	.	.	34	11.1	.	.	.	.	82	26.7	168	55.3
		20+	261	2	0.8	.	.	20	7.8	.	.	.	.	65	25.4	152	59.8
	Age at diagnosis	<1	445	1	0.2	.	.	31	7.0	1	0.2	.	.	84	19.0	245	55.9
		1-4	393	2	0.5	.	.	64	16.4	.	.	.	.	139	35.7	232	59.8
		5-9	69	.	.	.	.	11	16.2	.	.	.	.	20	30.3	36	53.7

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Neuroblastoma

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**1811**	**187**	**10.4**	**128**	**7.1**	**128**	**7.1**	**49**	**2.7**	**6**	**0.3**	**28**	**1.6**	**3**	**0.2**
	Age at baseline	<18	890	99	11.2	65	7.3	79	8.9	18	2.0	3	0.3	15	1.7	3	0.3
		18-19	216	20	9.3	15	7.0	9	4.2	5	2.3	.	.	3	1.4	.	.
		20-24	511	47	9.3	41	8.1	28	5.5	16	3.2	1	0.2	7	1.4	.	.
		25-29	154	14	9.4	6	4.0	10	6.7	8	5.3	1	0.7	2	1.3	.	.
		30-34	34	7	21.9	.	.	2	6.3	2	6.3	1	3.1	1	3.1	.	.
		35+	6	.	.	1	16.7	.	.	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	152	25	16.8	20	13.3	25	16.7	8	5.3	.	.	5	3.3	2	1.3
		10-14	559	58	10.4	33	5.9	54	9.7	9	1.6	3	0.5	9	1.6	1	0.2
		15-19	594	59	10.0	51	8.7	27	4.6	11	1.9	.	.	9	1.5	.	.
		20+	506	45	9.1	24	4.8	22	4.4	21	4.2	3	0.6	5	1.0	.	.
	Age at diagnosis	<1	917	79	8.7	24	2.6	16	1.8	21	2.3	2	0.2	2	0.2	.	.
		1-4	713	85	12.1	80	11.3	86	12.2	22	3.1	3	0.4	21	3.0	3	0.4
		5-9	137	18	13.3	20	14.9	23	17.0	3	2.2	1	0.7	3	2.2	.	.
		10-14	27	3	11.5	2	7.7	2	7.7	2	7.7	.	.	.	.	.	.
		15-20	17	2	11.8	2	11.8	1	5.9	1	5.9	.	.	2	11.8	.	.
Males	**All cases**		**876**	**89**	**10.3**	**72**	**8.3**	**64**	**7.4**	**25**	**2.9**	**1**	**0.1**	**13**	**1.5**	**2**	**0.2**
	Age at baseline	<18	441	42	9.6	42	9.6	40	9.1	8	1.8	.	.	6	1.4	2	0.5
		18-19	94	13	13.8	9	9.6	6	6.4	3	3.2	.	.	2	2.1	.	.
		20-24	259	24	9.4	19	7.4	13	5.1	11	4.3	.	.	3	1.2	.	.
		25-29	66	6	9.4	1	1.6	4	6.3	3	4.7	.	.	2	3.1	.	.
		30-34	14	4	28.6	.	.	1	7.1	.	.	1	7.1	.	.	.	.
		35+	2	.	.	1	50.0	.	.	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	72	7	10.0	10	14.1	10	14.1	2	2.8	.	.	1	1.4	2	2.8
		10-14	275	27	9.9	20	7.3	30	10.9	4	1.5	.	.	5	1.8	.	.
		15-19	284	31	11.0	32	11.3	14	5.0	8	2.8	.	.	6	2.1	.	.
		20+	245	24	10.0	10	4.1	10	4.1	11	4.6	1	0.4	1	0.4	.	.
	Age at diagnosis	<1	472	37	7.9	14	3.0	8	1.7	9	1.9	.	.	.	.	.	.
		1-4	320	40	12.7	44	13.9	43	13.6	14	4.4	.	.	9	2.8	2	0.6
		5-9	68	11	16.4	13	19.4	12	17.9	2	3.0	1	1.5	3	4.5	.	.
		10-14	10	.	.	.	.	1	10.0	.	.	.	.	.	.	.	.
		15-20	6	1	16.7	1	16.7	.	.	.	.	.	.	1	16.7	.	.
Females	**All cases**		**935**	**98**	**10.6**	**56**	**6.1**	**64**	**6.9**	**24**	**2.6**	**5**	**0.5**	**15**	**1.6**	**1**	**0.1**
	Age at baseline	<18	449	57	12.8	23	5.2	39	8.7	10	2.2	3	0.7	9	2.0	1	0.2
		18-19	122	7	5.7	6	5.0	3	2.5	2	1.6	.	.	1	0.8	.	.
		20-24	252	23	9.2	22	8.8	15	6.0	5	2.0	1	0.4	4	1.6	.	.
		25-29	88	8	9.4	5	5.9	6	7.0	5	5.8	1	1.2	.	.	.	.
		30-34	20	3	16.7	.	.	1	5.6	2	11.1	.	.	1	5.6	.	.
		35+	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	80	18	22.8	10	12.7	15	19.0	6	7.6	.	.	4	5.1	.	.
		10-14	284	31	10.9	13	4.6	24	8.5	5	1.8	3	1.1	4	1.4	1	0.4
		15-19	310	28	9.2	19	6.2	13	4.2	3	1.0	.	.	3	1.0	.	.
		20+	261	21	8.2	14	5.5	12	4.7	10	3.9	2	0.8	4	1.6	.	.
	Age at diagnosis	<1	445	42	9.5	10	2.3	8	1.8	12	2.7	2	0.5	2	0.5	.	.
		1-4	393	45	11.6	36	9.3	43	11.0	8	2.1	3	0.8	12	3.1	1	0.3
		5-9	69	7	10.3	7	10.4	11	16.2	1	1.5	.	.	.	.	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Neuroblastoma

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
		10-14	17	.	.	.	.	2	12.5	.	.	.	.	5	31.3	9	56.3
		15-20	11	.	.	.	.	4	36.4	.	.	.	.	5	45.5	6	54.5

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Neuroblastoma

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
		10-14	17	3	18.8	2	12.5	1	6.3	2	12.5	.	.	.	.	.	.
		15-20	11	1	9.1	1	9.1	1	9.1	1	9.1	.	.	1	9.1	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**1596**	**13**	**0.8**	**2**	**0.1**	**23**	**1.5**	**1**	**0.1**	**10**	**0.6**	**134**	**8.5**	**1080**	**68.5**
	Age at baseline	<18	313	.	.	1	0.3	10	3.2	1	0.3	2	0.6	58	18.6	240	77.7
		18-19	115	2	1.8	1	0.9	3	2.6	.	.	.	.	8	7.0	90	78.9
		20-24	383	2	0.5	.	.	3	0.8	.	.	2	0.5	27	7.1	277	73.1
		25-29	354	3	0.9	.	.	4	1.1	.	.	3	0.9	24	6.9	237	67.9
		30-34	267	3	1.1	.	.	3	1.1	.	.	1	0.4	12	4.5	162	61.1
		35+	164	3	1.9	.	.	.	.	.	.	2	1.2	5	3.1	74	46.3
	Years since diagnosis	5-9	165	.	.	.	.	5	3.0	.	.	1	0.6	48	29.4	111	68.9
		10-14	473	1	0.2	1	0.2	6	1.3	1	0.2	2	0.4	46	9.8	328	70.1
		15-19	499	7	1.4	1	0.2	7	1.4	.	.	3	0.6	12	2.4	366	73.9
		20+	459	5	1.1	.	.	5	1.1	.	.	4	0.9	28	6.2	275	60.8
	Age at diagnosis	<1	108	.	.	.	.	2	1.9	.	.	.	.	5	4.7	63	58.9
		1-4	513	3	0.6	2	0.4	12	2.4	1	0.2	4	0.8	62	12.2	404	79.7
		5-9	361	3	0.8	.	.	6	1.7	.	.	3	0.8	28	7.8	260	72.4
		10-14	313	3	1.0	.	.	3	1.0	.	.	1	0.3	22	7.1	201	65.7
		15-20	301	4	1.3	.	.	.	.	.	.	2	0.7	17	5.7	152	51.2
Males	**All cases**		**853**	**10**	**1.2**	**1**	**0.1**	**14**	**1.6**	**.**	**.**	**6**	**0.7**	**82**	**9.7**	**588**	**69.8**
	Age at baseline	<18	179	.	.	1	0.6	7	3.9	.	.	2	1.1	36	20.1	147	83.1
		18-19	58	2	3.4	.	.	.	.	.	.	.	.	4	6.9	47	81.0
		20-24	214	1	0.5	.	.	1	0.5	.	.	2	0.9	16	7.5	149	70.6
		25-29	182	3	1.7	.	.	4	2.2	.	.	1	0.6	12	6.7	123	68.3
		30-34	141	2	1.4	.	.	2	1.4	.	.	.	.	9	6.4	86	61.9
		35+	79	2	2.5	.	.	.	.	.	.	1	1.3	5	6.3	36	46.2
	Years since diagnosis	5-9	89	.	.	.	.	2	2.2	.	.	1	1.1	29	33.0	63	73.3
		10-14	264	1	0.4	1	0.4	6	2.3	.	.	2	0.8	29	11.0	193	73.7
		15-19	253	5	2.0	.	.	2	0.8	.	.	1	0.4	8	3.2	181	72.4
		20+	247	4	1.6	.	.	4	1.6	.	.	2	0.8	16	6.5	151	61.6
	Age at diagnosis	<1	44	.	.	.	.	1	2.3	.	.	.	.	2	4.5	30	68.2
		1-4	298	3	1.0	1	0.3	8	2.7	.	.	4	1.3	38	12.8	236	80.0
		5-9	203	2	1.0	.	.	2	1.0	.	.	.	.	17	8.4	144	71.6
		10-14	167	3	1.8	.	.	3	1.8	.	.	1	0.6	14	8.4	106	65.0
		15-20	141	2	1.4	.	.	.	.	.	.	1	0.7	11	7.9	72	51.4
Females	**All cases**		**743**	**3**	**0.4**	**1**	**0.1**	**9**	**1.2**	**1**	**0.1**	**4**	**0.5**	**52**	**7.1**	**492**	**67.1**
	Age at baseline	<18	134	.	.	.	.	3	2.3	1	0.8	.	.	22	16.5	93	70.5
		18-19	57	.	.	1	1.8	3	5.4	.	.	.	.	4	7.1	43	76.8
		20-24	169	1	0.6	.	.	2	1.2	.	.	.	.	11	6.5	128	76.2
		25-29	172	.	.	.	.	.	.	.	.	2	1.2	12	7.1	114	67.5
		30-34	126	1	0.8	.	.	1	0.8	.	.	1	0.8	3	2.4	76	60.3
		35+	85	1	1.2	.	.	.	.	.	.	1	1.2	.	.	38	46.3
	Years since diagnosis	5-9	76	.	.	.	.	3	4.0	.	.	.	.	19	25.3	48	64.0
		10-14	209	.	.	.	.	.	.	1	0.5	.	.	17	8.2	135	65.5
		15-19	246	2	0.8	1	0.4	5	2.0	.	.	2	0.8	4	1.6	185	75.5
		20+	212	1	0.5	.	.	1	0.5	.	.	2	1.0	12	5.8	124	59.9
	Age at diagnosis	<1	64	.	.	.	.	1	1.6	.	.	.	.	3	4.8	33	52.4
		1-4	215	.	.	1	0.5	4	1.9	1	0.5	.	.	24	11.3	168	79.2
		5-9	158	1	0.6	.	.	4	2.5	.	.	3	1.9	11	7.0	116	73.4
		10-14	146	.	.	.	.	.	.	.	.	.	.	8	5.6	95	66.4
		15-20	160	2	1.3	.	.	.	.	.	.	1	0.6	6	3.8	80	51.0

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**1596**	**78**	**4.9**	**259**	**16.3**	**24**	**1.5**	**14**	**0.9**	**1**	**0.1**	**8**	**0.5**	**.**	**.**
	Age at baseline	<18	313	24	7.7	55	17.6	7	2.2	6	1.9	1	0.3	1	0.3	.	.
		18-19	115	3	2.6	20	17.5	3	2.6	.	.	.	.	1	0.9	.	.
		20-24	383	11	2.9	91	23.9	8	2.1	2	0.5	.	.	3	0.8	.	.
		25-29	354	12	3.4	55	15.7	3	0.9	2	0.6	.	.	2	0.6	.	.
		30-34	267	11	4.1	31	11.7	1	0.4	3	1.1	.	.	1	0.4	.	.
		35+	164	17	10.5	7	4.3	2	1.2	1	0.6	.	.	.	.	.	.
	Years since diagnosis	5-9	165	20	12.3	24	14.6	5	3.0	2	1.2	.	.	.	.	.	.
		10-14	473	26	5.5	69	14.6	6	1.3	5	1.1	1	0.2	2	0.4	.	.
		15-19	499	21	4.2	105	21.1	8	1.6	5	1.0	.	.	4	0.8	.	.
		20+	459	11	2.4	61	13.5	5	1.1	2	0.4	.	.	2	0.4	.	.
	Age at diagnosis	<1	108	3	2.8	16	15.0	2	1.9	.	.	.	.	.	.	.	.
		1-4	513	22	4.3	109	21.4	11	2.2	9	1.8	1	0.2	4	0.8	.	.
		5-9	361	8	2.2	66	18.3	4	1.1	.	.	.	.	1	0.3	.	.
		10-14	313	17	5.5	42	13.5	3	1.0	2	0.6	.	.	3	1.0	.	.
		15-20	301	28	9.4	26	8.7	4	1.3	3	1.0	.	.	.	.	.	.
Males	**All cases**		**853**	**43**	**5.1**	**149**	**17.6**	**12**	**1.4**	**10**	**1.2**	**.**	**.**	**6**	**0.7**	**.**	**.**
	Age at baseline	<18	179	16	9.0	38	21.2	5	2.8	3	1.7	.	.	1	0.6	.	.
		18-19	58	1	1.7	9	15.5	.	.	.	.	.	.	.	.	.	.
		20-24	214	5	2.3	48	22.5	5	2.3	1	0.5	.	.	2	0.9	.	.
		25-29	182	4	2.2	34	18.8	1	0.6	2	1.1	.	.	2	1.1	.	.
		30-34	141	8	5.7	18	12.9	.	.	3	2.1	.	.	1	0.7	.	.
		35+	79	9	11.4	2	2.5	1	1.3	1	1.3	.	.	.	.	.	.
	Years since diagnosis	5-9	89	11	12.6	16	18.0	2	2.2	2	2.2	.	.	.	.	.	.
		10-14	264	13	4.9	48	18.2	5	1.9	3	1.1	.	.	2	0.8	.	.
		15-19	253	12	4.8	54	21.5	3	1.2	3	1.2	.	.	2	0.8	.	.
		20+	247	7	2.8	31	12.7	2	0.8	2	0.8	.	.	2	0.8	.	.
	Age at diagnosis	<1	44	1	2.3	7	15.9	1	2.3	.	.	.	.	.	.	.	.
		1-4	298	15	5.1	61	20.6	7	2.4	5	1.7	.	.	3	1.0	.	.
		5-9	203	4	2.0	42	20.8	.	.	.	.	.	.	.	.	.	.
		10-14	167	9	5.4	30	18.1	3	1.8	2	1.2	.	.	3	1.8	.	.
		15-20	141	14	10.0	9	6.4	1	0.7	3	2.1	.	.	.	.	.	.
Females	**All cases**		**743**	**35**	**4.8**	**110**	**14.9**	**12**	**1.6**	**4**	**0.5**	**1**	**0.1**	**2**	**0.3**	**.**	**.**
	Age at baseline	<18	134	8	6.0	17	12.8	2	1.5	3	2.3	1	0.8	.	.	.	.
		18-19	57	2	3.6	11	19.6	3	5.4	.	.	.	.	1	1.8	.	.
		20-24	169	6	3.6	43	25.6	3	1.8	1	0.6	.	.	1	0.6	.	.
		25-29	172	8	4.7	21	12.4	2	1.2	.	.	.	.	.	.	.	.
		30-34	126	3	2.4	13	10.3	1	0.8	.	.	.	.	.	.	.	.
		35+	85	8	9.6	5	6.0	1	1.2	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	76	9	12.0	8	10.7	3	4.0	.	.	.	.	.	.	.	.
		10-14	209	13	6.3	21	10.1	1	0.5	2	1.0	1	0.5	.	.	.	.
		15-19	246	9	3.7	51	20.7	5	2.0	2	0.8	.	.	2	0.8	.	.
		20+	212	4	1.9	30	14.4	3	1.4	.	.	.	.	.	.	.	.
	Age at diagnosis	<1	64	2	3.2	9	14.3	1	1.6	.	.	.	.	.	.	.	.
		1-4	215	7	3.3	48	22.5	4	1.9	4	1.9	1	0.5	1	0.5	.	.
		5-9	158	4	2.5	24	15.2	4	2.5	.	.	.	.	1	0.6	.	.
		10-14	146	8	5.6	12	8.3	.	.	.	.	.	.	.	.	.	.
		15-20	160	14	8.9	17	10.8	3	1.9	.	.	.	.	.	.	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**1937**	**20**	**1.0**	**7**	**0.4**	**88**	**4.6**	**2**	**0.1**	**7**	**0.4**	**647**	**33.6**	**1167**	**60.8**
	Age at baseline	<18	85	1	1.2	.	.	5	6.0	.	.	.	.	22	25.9	67	79.8
		18-19	66	.	.	.	.	4	6.1	.	.	.	.	20	30.3	49	74.2
		20-24	360	4	1.1	3	0.8	23	6.4	1	0.3	2	0.6	137	38.3	258	71.9
		25-29	528	4	0.8	2	0.4	27	5.1	.	.	1	0.2	204	38.9	302	57.9
		30-34	521	6	1.2	1	0.2	19	3.7	1	0.2	1	0.2	173	33.4	279	54.1
		35+	377	5	1.3	1	0.3	10	2.7	.	.	3	0.8	91	24.4	212	57.0
	Years since diagnosis	5-9	216	2	0.9	.	.	19	8.9	.	.	2	0.9	103	48.1	156	72.6
		10-14	630	3	0.5	2	0.3	36	5.7	.	.	.	.	246	39.4	389	62.3
		15-19	635	10	1.6	5	0.8	24	3.8	2	0.3	2	0.3	183	29.0	353	56.2
		20+	456	5	1.1	.	.	9	2.0	.	.	3	0.7	115	25.4	269	59.5
	Age at diagnosis	<1	8	.	.	.	.	1	12.5	.	.	.	.	.	.	5	62.5
		1-4	80	1	1.3	.	.	.	.	.	.	.	.	19	23.8	61	77.2
		5-9	337	5	1.5	3	0.9	14	4.2	1	0.3	1	0.3	80	23.7	228	67.7
		10-14	776	8	1.0	2	0.3	40	5.2	1	0.1	3	0.4	292	37.9	461	60.2
		15-20	736	6	0.8	2	0.3	33	4.5	.	.	3	0.4	256	35.2	412	56.5
Males	**All cases**		**983**	**13**	**1.3**	**4**	**0.4**	**44**	**4.5**	**1**	**0.1**	**3**	**0.3**	**333**	**34.1**	**605**	**62.0**
	Age at baseline	<18	43	1	2.3	.	.	1	2.4	.	.	.	.	14	32.6	32	74.4
		18-19	33	.	.	.	.	2	6.1	.	.	.	.	8	24.2	22	66.7
		20-24	175	2	1.1	1	0.6	14	8.0	.	.	2	1.1	63	36.2	129	74.1
		25-29	274	2	0.7	2	0.7	13	4.8	.	.	.	.	112	41.2	155	57.0
		30-34	258	4	1.6	.	.	7	2.7	1	0.4	.	.	88	34.4	150	58.6
		35+	200	4	2.0	1	0.5	7	3.5	.	.	1	0.5	48	24.1	117	59.1
	Years since diagnosis	5-9	115	1	0.9	.	.	10	8.8	.	.	2	1.8	54	47.4	81	71.1
		10-14	319	.	.	1	0.3	16	5.0	.	.	.	.	129	40.8	197	62.1
		15-19	323	8	2.5	3	0.9	14	4.3	1	0.3	.	.	92	28.6	186	57.9
		20+	226	4	1.8	.	.	4	1.8	.	.	1	0.4	58	25.8	141	62.9
	Age at diagnosis	<1	4	.	.	.	.	.	.	.	.	.	.	.	.	3	75.0
		1-4	41	1	2.4	.	.	.	.	.	.	.	.	10	24.4	33	80.5
		5-9	172	4	2.3	2	1.2	7	4.1	.	.	.	.	38	22.1	117	68.0
		10-14	364	3	0.8	1	0.3	17	4.7	1	0.3	1	0.3	135	37.3	220	61.1
		15-20	402	5	1.3	1	0.3	20	5.0	.	.	2	0.5	150	37.7	232	58.1
Females	**All cases**		**954**	**7**	**0.7**	**3**	**0.3**	**44**	**4.6**	**1**	**0.1**	**4**	**0.4**	**314**	**33.2**	**562**	**59.6**
	Age at baseline	<18	42	.	.	.	.	4	9.5	.	.	.	.	8	19.0	35	85.4
		18-19	33	.	.	.	.	2	6.1	.	.	.	.	12	36.4	27	81.8
		20-24	185	2	1.1	2	1.1	9	4.9	1	0.5	.	.	74	40.2	129	69.7
		25-29	254	2	0.8	.	.	14	5.5	.	.	1	0.4	92	36.5	147	58.8
		30-34	263	2	0.8	1	0.4	12	4.6	.	.	1	0.4	85	32.4	129	49.6
		35+	177	1	0.6	.	.	3	1.7	.	.	2	1.1	43	24.7	95	54.6
	Years since diagnosis	5-9	101	1	1.0	.	.	9	9.0	.	.	.	.	49	49.0	75	74.3
		10-14	311	3	1.0	1	0.3	20	6.4	.	.	.	.	117	37.9	192	62.5
		15-19	312	2	0.6	2	0.6	10	3.2	1	0.3	2	0.6	91	29.4	167	54.4
		20+	230	1	0.4	.	.	5	2.2	.	.	2	0.9	57	25.0	128	56.1
	Age at diagnosis	<1	4	.	.	.	.	1	25.0	.	.	.	.	.	.	2	50.0
		1-4	39	.	.	.	.	.	.	.	.	.	.	9	23.1	28	73.7
		5-9	165	1	0.6	1	0.6	7	4.2	1	0.6	1	0.6	42	25.5	111	67.3
		10-14	412	5	1.2	1	0.2	23	5.6	.	.	2	0.5	157	38.4	241	59.4
		15-20	334	1	0.3	1	0.3	13	3.9	.	.	1	0.3	106	32.1	180	54.5

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**1937**	**44**	**2.3**	**595**	**30.9**	**68**	**3.5**	**8**	**0.4**	**.**	**.**	**9**	**0.5**	**1**	**0.1**
	Age at baseline	<18	85	1	1.2	37	43.5	2	2.4	1	1.2	.	.	1	1.2	.	.
		18-19	66	1	1.5	21	31.8	1	1.5	.	.	.	.	1	1.5	1	1.5
		20-24	360	8	2.2	131	36.7	9	2.5	1	0.3	.	.	4	1.1	.	.
		25-29	528	10	1.9	180	34.2	10	1.9	2	0.4	.	.	1	0.2	.	.
		30-34	521	14	2.7	151	29.2	23	4.4	1	0.2	.	.	1	0.2	.	.
		35+	377	10	2.7	75	20.1	23	6.2	3	0.8	.	.	1	0.3	.	.
	Years since diagnosis	5-9	216	12	5.6	70	32.7	3	1.4	2	0.9	.	.	1	0.5	1	0.5
		10-14	630	16	2.5	211	33.6	13	2.1	1	0.2	.	.	4	0.6	.	.
		15-19	635	9	1.4	211	33.5	27	4.3	2	0.3	.	.	4	0.6	.	.
		20+	456	7	1.5	103	22.7	25	5.5	3	0.7	.	.	.	.	.	.
	Age at diagnosis	<1	8	.	.	4	50.0	1	12.5	.	.	.	.	.	.	.	.
		1-4	80	1	1.3	30	37.5	.	.	1	1.3	.	.	2	2.5	.	.
		5-9	337	1	0.3	118	35.0	13	3.9	1	0.3	.	.	1	0.3	.	.
		10-14	776	2	0.3	250	32.5	27	3.5	4	0.5	.	.	3	0.4	1	0.1
		15-20	736	40	5.5	193	26.4	27	3.7	2	0.3	.	.	3	0.4	.	.
Males	**All cases**		**983**	**24**	**2.5**	**308**	**31.5**	**30**	**3.1**	**3**	**0.3**	**.**	**.**	**4**	**0.4**	**.**	**.**
	Age at baseline	<18	43	.	.	19	44.2	.	.	.	.	.	.	1	2.4	.	.
		18-19	33	.	.	9	27.3	.	.	.	.	.	.	.	.	.	.
		20-24	175	4	2.3	65	37.6	4	2.3	.	.	.	.	1	0.6	.	.
		25-29	274	6	2.2	97	35.5	6	2.2	1	0.4	.	.	1	0.4	.	.
		30-34	258	7	2.7	76	29.6	9	3.5	1	0.4	.	.	.	.	.	.
		35+	200	7	3.5	42	21.1	11	5.5	1	0.5	.	.	1	0.5	.	.
	Years since diagnosis	5-9	115	7	6.2	42	36.8	1	0.9	.	.	.	.	1	0.9	.	.
		10-14	319	7	2.2	99	31.2	5	1.6	.	.	.	.	2	0.6	.	.
		15-19	323	5	1.6	112	34.8	15	4.7	1	0.3	.	.	1	0.3	.	.
		20+	226	5	2.2	55	24.4	9	4.0	2	0.9	.	.	.	.	.	.
	Age at diagnosis	<1	4	.	.	2	50.0	.	.	.	.	.	.	.	.	.	.
		1-4	41	.	.	16	39.0	.	.	.	.	.	.	1	2.4	.	.
		5-9	172	.	.	57	33.1	5	2.9	1	0.6	.	.	.	.	.	.
		10-14	364	.	.	124	34.3	11	3.0	2	0.6	.	.	1	0.3	.	.
		15-20	402	24	6.0	109	27.3	14	3.5	.	.	.	.	2	0.5	.	.
Females	**All cases**		**954**	**20**	**2.1**	**287**	**30.3**	**38**	**4.0**	**5**	**0.5**	**.**	**.**	**5**	**0.5**	**1**	**0.1**
	Age at baseline	<18	42	1	2.4	18	42.9	2	4.8	1	2.4	.	.	.	.	.	.
		18-19	33	1	3.0	12	36.4	1	3.0	.	.	.	.	1	3.0	1	3.0
		20-24	185	4	2.2	66	35.9	5	2.7	1	0.5	.	.	3	1.6	.	.
		25-29	254	4	1.6	83	32.8	4	1.6	1	0.4	.	.	.	.	.	.
		30-34	263	7	2.7	75	28.7	14	5.3	.	.	.	.	1	0.4	.	.
		35+	177	3	1.7	33	19.0	12	6.9	2	1.1	.	.	.	.	.	.
	Years since diagnosis	5-9	101	5	5.0	28	28.0	2	2.0	2	2.0	.	.	.	.	1	1.0
		10-14	311	9	2.9	112	36.0	8	2.6	1	0.3	.	.	2	0.6	.	.
		15-19	312	4	1.3	99	32.1	12	3.9	1	0.3	.	.	3	1.0	.	.
		20+	230	2	0.9	48	21.1	16	7.0	1	0.4	.	.	.	.	.	.
	Age at diagnosis	<1	4	.	.	2	50.0	1	25.0	.	.	.	.	.	.	.	.
		1-4	39	1	2.6	14	35.9	.	.	1	2.6	.	.	1	2.6	.	.
		5-9	165	1	0.6	61	37.0	8	4.8	.	.	.	.	1	0.6	.	.
		10-14	412	2	0.5	126	30.8	16	3.9	2	0.5	.	.	2	0.5	1	0.2
		15-20	334	16	4.8	84	25.5	13	3.9	2	0.6	.	.	1	0.3	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**686**	**19**	**2.8**	**5**	**0.7**	**14**	**2.0**	**2**	**0.3**	**7**	**1.0**	**24**	**3.5**	**640**	**94.5**
	Age at baseline	<18	54	1	1.9	.	.	4	7.5	.	.	.	.	2	3.7	48	90.6
		18-19	33	.	.	.	.	1	3.0	.	.	.	.	1	3.0	31	93.9
		20-24	157	4	2.6	2	1.3	1	0.6	1	0.6	2	1.3	13	8.3	148	94.9
		25-29	193	4	2.1	2	1.0	6	3.1	.	.	1	0.5	6	3.1	183	95.8
		30-34	154	6	3.9	1	0.7	2	1.3	1	0.7	1	0.7	2	1.3	144	96.0
		35+	95	4	4.2	.	.	.	.	.	.	3	3.2	.	.	86	91.5
	Years since diagnosis	5-9	91	2	2.2	.	.	5	5.6	.	.	2	2.2	13	14.4	80	88.9
		10-14	231	3	1.3	2	0.9	6	2.6	.	.	.	.	9	3.9	222	96.9
		15-19	214	10	4.7	3	1.4	2	0.9	2	0.9	2	0.9	1	0.5	202	96.7
		20+	150	4	2.7	.	.	1	0.7	.	.	3	2.0	1	0.7	136	91.3
	Age at diagnosis	<1	4	.	.	.	.	1	25.0	.	.	.	.	.	.	2	50.0
		1-4	50	1	2.0	.	.	.	.	.	.	.	.	2	4.0	45	91.8
		5-9	169	5	3.0	2	1.2	2	1.2	1	0.6	1	0.6	2	1.2	163	96.4
		10-14	258	7	2.7	2	0.8	8	3.1	1	0.4	3	1.2	7	2.7	237	93.7
		15-20	205	6	2.9	1	0.5	3	1.5	.	.	3	1.5	13	6.4	193	95.5
Males	**All cases**		**354**	**12**	**3.4**	**2**	**0.6**	**6**	**1.7**	**1**	**0.3**	**3**	**0.8**	**15**	**4.2**	**335**	**95.4**
	Age at baseline	<18	24	1	4.2	.	.	.	.	.	.	.	.	1	4.2	22	91.7
		18-19	17	.	.	.	.	1	5.9	.	.	.	.	.	.	16	94.1
		20-24	79	2	2.6	.	.	1	1.3	.	.	2	2.6	9	11.5	77	98.7
		25-29	99	2	2.0	2	2.0	3	3.0	.	.	.	.	4	4.0	93	93.9
		30-34	83	4	4.8	.	.	1	1.2	1	1.2	.	.	1	1.2	79	96.3
		35+	52	3	5.8	.	.	.	.	.	.	1	1.9	.	.	48	94.1
	Years since diagnosis	5-9	49	1	2.1	.	.	2	4.3	.	.	2	4.2	9	18.8	44	91.7
		10-14	109	.	.	1	0.9	2	1.8	.	.	.	.	4	3.7	106	97.2
		15-19	116	8	6.9	1	0.9	2	1.7	1	0.9	.	.	1	0.9	110	95.7
		20+	80	3	3.8	.	.	.	.	.	.	1	1.3	1	1.3	75	94.9
	Age at diagnosis	<1	2	.	.	.	.	.	.	.	.	.	.	.	.	1	50.0
		1-4	26	1	3.8	.	.	.	.	.	.	.	.	2	7.7	26	100.0
		5-9	83	4	4.8	1	1.2	.	.	.	.	.	.	1	1.2	81	97.6
		10-14	136	2	1.5	1	0.7	4	3.0	1	0.7	1	0.7	5	3.7	126	94.0
		15-20	107	5	4.7	.	.	2	1.9	.	.	2	1.9	7	6.5	101	95.3
Females	**All cases**		**332**	**7**	**2.1**	**3**	**0.9**	**8**	**2.4**	**1**	**0.3**	**4**	**1.2**	**9**	**2.7**	**305**	**93.6**
	Age at baseline	<18	30	.	.	.	.	4	13.3	.	.	.	.	1	3.3	26	89.7
		18-19	16	.	.	.	.	.	.	.	.	.	.	1	6.3	15	93.8
		20-24	78	2	2.6	2	2.6	.	.	1	1.3	.	.	4	5.1	71	91.0
		25-29	94	2	2.1	.	.	3	3.2	.	.	1	1.1	2	2.1	90	97.8
		30-34	71	2	2.9	1	1.4	1	1.4	.	.	1	1.4	1	1.4	65	95.6
		35+	43	1	2.3	.	.	.	.	.	.	2	4.7	.	.	38	88.4
	Years since diagnosis	5-9	42	1	2.4	.	.	3	7.1	.	.	.	.	4	9.5	36	85.7
		10-14	122	3	2.5	1	0.8	4	3.3	.	.	.	.	5	4.1	116	96.7
		15-19	98	2	2.1	2	2.1	.	.	1	1.0	2	2.1	.	.	92	97.9
		20+	70	1	1.4	.	.	1	1.4	.	.	2	2.9	.	.	61	87.1
	Age at diagnosis	<1	2	.	.	.	.	1	50.0	.	.	.	.	.	.	1	50.0
		1-4	24	.	.	.	.	.	.	.	.	.	.	.	.	19	82.6
		5-9	86	1	1.2	1	1.2	2	2.3	1	1.2	1	1.2	1	1.2	82	95.3
		10-14	122	5	4.1	1	0.8	4	3.3	.	.	2	1.6	2	1.6	111	93.3
		15-20	98	1	1.0	1	1.0	1	1.0	.	.	1	1.0	6	6.2	92	95.8

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**686**	**17**	**2.5**	**256**	**37.5**	**17**	**2.5**	**7**	**1.0**	**.**	**.**	**7**	**1.0**	**1**	**0.1**
	Age at baseline	<18	54	.	.	26	48.1	2	3.8	.	.	.	.	1	1.9	.	.
		18-19	33	1	3.0	9	27.3	1	3.0	.	.	.	.	.	.	1	3.0
		20-24	157	3	1.9	61	39.1	4	2.6	1	0.6	.	.	4	2.6	.	.
		25-29	193	2	1.0	84	43.8	7	3.6	2	1.0	.	.	1	0.5	.	.
		30-34	154	5	3.3	50	32.9	3	2.0	1	0.7	.	.	1	0.7	.	.
		35+	95	6	6.3	26	27.4	.	.	3	3.2	.	.	.	.	.	.
	Years since diagnosis	5-9	91	4	4.4	30	33.3	2	2.2	1	1.1	.	.	1	1.1	1	1.1
		10-14	231	5	2.2	100	43.3	9	3.9	1	0.4	.	.	4	1.7	.	.
		15-19	214	4	1.9	88	41.7	5	2.3	2	0.9	.	.	2	0.9	.	.
		20+	150	4	2.7	38	25.3	1	0.7	3	2.0	.	.	.	.	.	.
	Age at diagnosis	<1	4	.	.	3	75.0	1	25.0	.	.	.	.	.	.	.	.
		1-4	50	.	.	19	38.0	.	.	.	.	.	.	1	2.0	.	.
		5-9	169	1	0.6	61	36.1	4	2.4	1	0.6	.	.	1	0.6	.	.
		10-14	258	1	0.4	100	39.2	9	3.5	4	1.6	.	.	3	1.2	1	0.4
		15-20	205	15	7.4	73	35.8	3	1.5	2	1.0	.	.	2	1.0	.	.
Males	**All cases**		**354**	**10**	**2.8**	**131**	**37.1**	**6**	**1.7**	**3**	**0.8**	**.**	**.**	**3**	**0.9**	**.**	**.**
	Age at baseline	<18	24	.	.	11	45.8	.	.	.	.	.	.	1	4.3	.	.
		18-19	17	.	.	3	17.6	.	.	.	.	.	.	.	.	.	.
		20-24	79	1	1.3	29	37.2	1	1.3	.	.	.	.	1	1.3	.	.
		25-29	99	2	2.0	46	46.5	4	4.0	1	1.0	.	.	1	1.0	.	.
		30-34	83	2	2.4	28	33.7	1	1.2	1	1.2	.	.	.	.	.	.
		35+	52	5	9.6	14	26.9	.	.	1	1.9	.	.	.	.	.	.
	Years since diagnosis	5-9	49	3	6.3	18	37.5	.	.	.	.	.	.	1	2.1	.	.
		10-14	109	1	0.9	44	40.4	3	2.8	.	.	.	.	2	1.8	.	.
		15-19	116	3	2.6	50	43.1	3	2.6	1	0.9	.	.	.	.	.	.
		20+	80	3	3.8	19	23.8	.	.	2	2.5	.	.	.	.	.	.
	Age at diagnosis	<1	2	.	.	1	50.0	.	.	.	.	.	.	.	.	.	.
		1-4	26	.	.	10	38.5	.	.	.	.	.	.	1	3.8	.	.
		5-9	83	.	.	26	31.3	1	1.2	1	1.2	.	.	.	.	.	.
		10-14	136	.	.	52	38.5	4	3.0	2	1.5	.	.	1	0.7	.	.
		15-20	107	10	9.3	42	39.3	1	0.9	.	.	.	.	1	0.9	.	.
Females	**All cases**		**332**	**7**	**2.1**	**125**	**38.0**	**11**	**3.3**	**4**	**1.2**	**.**	**.**	**4**	**1.2**	**1**	**0.3**
	Age at baseline	<18	30	.	.	15	50.0	2	6.7	.	.	.	.	.	.	.	.
		18-19	16	1	6.3	6	37.5	1	6.3	.	.	.	.	.	.	1	6.3
		20-24	78	2	2.6	32	41.0	3	3.8	1	1.3	.	.	3	3.8	.	.
		25-29	94	.	.	38	40.9	3	3.2	1	1.1	.	.	.	.	.	.
		30-34	71	3	4.3	22	31.9	2	2.9	.	.	.	.	1	1.4	.	.
		35+	43	1	2.3	12	27.9	.	.	2	4.7	.	.	.	.	.	.
	Years since diagnosis	5-9	42	1	2.4	12	28.6	2	4.8	1	2.4	.	.	.	.	1	2.4
		10-14	122	4	3.3	56	45.9	6	4.9	1	0.8	.	.	2	1.6	.	.
		15-19	98	1	1.0	38	40.0	2	2.1	1	1.0	.	.	2	2.1	.	.
		20+	70	1	1.4	19	27.1	1	1.4	1	1.4	.	.	.	.	.	.
	Age at diagnosis	<1	2	.	.	2	100.0	1	50.0	.	.	.	.	.	.	.	.
		1-4	24	.	.	9	37.5	.	.	.	.	.	.	.	.	.	.
		5-9	86	1	1.2	35	40.7	3	3.5	.	.	.	.	1	1.2	.	.
		10-14	122	1	0.8	48	40.0	5	4.1	2	1.6	.	.	2	1.6	1	0.8
		15-20	98	5	5.2	31	32.0	2	2.1	2	2.1	.	.	1	1.0	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Osteosarcoma

				BCNU (Carmustine)		Busulfan		Carboplatin		CCNU (Lomustine)		Chlorambucil		Cis-Platinum		Cyclophosphamide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**1154**	**1**	**0.1**	**1**	**0.1**	**71**	**6.2**	**.**	**.**	**.**	**.**	**619**	**54.2**	**470**	**41.0**
	Age at baseline	<18	25	.	.	.	.	1	4.0	.	.	.	.	19	76.0	14	56.0
		18-19	27	.	.	.	.	3	11.1	.	.	.	.	19	70.4	14	51.9
		20-24	184	.	.	.	.	21	11.5	.	.	.	.	123	67.2	95	51.6
		25-29	317	.	.	.	.	21	6.6	.	.	.	.	198	63.3	107	34.2
		30-34	340	.	.	.	.	15	4.4	.	.	.	.	170	50.3	120	35.4
		35+	261	1	0.4	1	0.4	10	3.9	.	.	.	.	90	35.0	120	46.7
	Years since diagnosis	5-9	119	.	.	.	.	14	11.9	.	.	.	.	88	74.6	72	60.5
		10-14	362	.	.	.	.	28	7.8	.	.	.	.	237	66.4	143	39.9
		15-19	392	.	.	1	0.3	21	5.4	.	.	.	.	181	46.4	133	34.1
		20+	281	1	0.4	.	.	8	2.9	.	.	.	.	113	40.6	122	43.9
	Age at diagnosis	1-4	21	.	.	.	.	.	.	.	.	.	.	16	76.2	9	42.9
		5-9	151	.	.	.	.	11	7.3	.	.	.	.	78	51.7	55	36.4
		10-14	492	1	0.2	.	.	32	6.5	.	.	.	.	284	58.2	204	41.9
		15-20	490	.	.	1	0.2	28	5.8	.	.	.	.	241	49.9	202	41.6
Males	**All cases**		**581**	**1**	**0.2**	**1**	**0.2**	**36**	**6.2**	**.**	**.**	**.**	**.**	**317**	**55.0**	**242**	**41.9**
	Age at baseline	<18	18	.	.	.	.	1	5.6	.	.	.	.	13	72.2	9	50.0
		18-19	12	.	.	.	.	1	8.3	.	.	.	.	8	66.7	4	33.3
		20-24	86	.	.	.	.	12	14.0	.	.	.	.	54	62.8	44	51.2
		25-29	165	.	.	.	.	10	6.1	.	.	.	.	108	66.3	56	34.4
		30-34	161	.	.	.	.	5	3.1	.	.	.	.	86	54.1	63	39.4
		35+	139	1	0.7	1	0.7	7	5.1	.	.	.	.	48	34.8	66	47.8
	Years since diagnosis	5-9	64	.	.	.	.	8	12.5	.	.	.	.	45	70.3	36	56.3
		10-14	191	.	.	.	.	13	6.8	.	.	.	.	125	66.5	78	41.3
		15-19	192	.	.	1	0.5	11	5.8	.	.	.	.	90	47.1	68	35.6
		20+	134	1	0.8	.	.	4	3.0	.	.	.	.	57	42.9	60	45.1
	Age at diagnosis	1-4	11	.	.	.	.	.	.	.	.	.	.	8	72.7	5	45.5
		5-9	76	.	.	.	.	6	7.9	.	.	.	.	37	48.7	28	36.8
		10-14	221	1	0.5	.	.	13	5.9	.	.	.	.	130	59.1	89	40.6
		15-20	273	.	.	1	0.4	17	6.3	.	.	.	.	142	52.8	120	44.3
Females	**All cases**		**573**	**.**	**.**	**.**	**.**	**35**	**6.2**	**.**	**.**	**.**	**.**	**302**	**53.3**	**228**	**40.1**
	Age at baseline	<18	7	.	.	.	.	.	.	.	.	.	.	6	85.7	5	71.4
		18-19	15	.	.	.	.	2	13.3	.	.	.	.	11	73.3	10	66.7
		20-24	98	.	.	.	.	9	9.3	.	.	.	.	69	71.1	51	52.0
		25-29	152	.	.	.	.	11	7.2	.	.	.	.	90	60.0	51	34.0
		30-34	179	.	.	.	.	10	5.6	.	.	.	.	84	46.9	57	31.8
		35+	122	.	.	.	.	3	2.5	.	.	.	.	42	35.3	54	45.4
	Years since diagnosis	5-9	55	.	.	.	.	6	11.1	.	.	.	.	43	79.6	36	65.5
		10-14	171	.	.	.	.	15	8.8	.	.	.	.	112	66.3	65	38.5
		15-19	200	.	.	.	.	10	5.0	.	.	.	.	91	45.7	65	32.7
		20+	147	.	.	.	.	4	2.8	.	.	.	.	56	38.6	62	42.8
	Age at diagnosis	1-4	10	.	.	.	.	.	.	.	.	.	.	8	80.0	4	40.0
		5-9	75	.	.	.	.	5	6.7	.	.	.	.	41	54.7	27	36.0
		10-14	271	.	.	.	.	19	7.1	.	.	.	.	154	57.5	115	42.9
		15-20	217	.	.	.	.	11	5.1	.	.	.	.	99	46.3	82	38.1

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.

Chemotherapy agents - Alkylating agents (including Platinum drugs): Osteosarcoma

				DTIC		Ifosfamide		Melphalan		Nitrogen Mustard		Procarbazine		ThioTepa		Temozolomide	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	**All cases**		**1154**	**24**	**2.1**	**299**	**26.1**	**47**	**4.1**	**.**	**.**	**.**	**.**	**1**	**0.1**	**.**	**.**
	Age at baseline	<18	25	.	.	8	32.0	.	.	.	.	.	.	.	.	.	.
		18-19	27	.	.	8	29.6	.	.	.	.	.	.	.	.	.	.
		20-24	184	4	2.2	61	33.5	3	1.6	.	.	.	.	.	.	.	.
		25-29	317	7	2.2	87	27.5	3	0.9	.	.	.	.	.	.	.	.
		30-34	340	9	2.7	89	26.3	18	5.3	.	.	.	.	.	.	.	.
		35+	261	4	1.6	46	17.9	23	8.9	.	.	.	.	1	0.4	.	.
	Years since diagnosis	5-9	119	6	5.1	39	33.1	1	0.8	.	.	.	.	.	.	.	.
		10-14	362	10	2.8	91	25.3	2	0.6	.	.	.	.	.	.	.	.
		15-19	392	5	1.3	109	27.9	20	5.1	.	.	.	.	1	0.3	.	.
		20+	281	3	1.1	60	21.6	24	8.6	.	.	.	.	.	.	.	.
	Age at diagnosis	1-4	21	.	.	5	23.8	.	.	.	.	.	.	.	.	.	.
		5-9	151	.	.	50	33.1	7	4.6	.	.	.	.	.	.	.	.
		10-14	492	.	.	138	28.2	18	3.7	.	.	.	.	.	.	.	.
		15-20	490	24	4.9	106	21.9	22	4.5	.	.	.	.	1	0.2	.	.
Males	**All cases**		**581**	**14**	**2.4**	**156**	**27.0**	**22**	**3.8**	**.**	**.**	**.**	**.**	**1**	**0.2**	**.**	**.**
	Age at baseline	<18	18	.	.	7	38.9	.	.	.	.	.	.	.	.	.	.
		18-19	12	.	.	4	33.3	.	.	.	.	.	.	.	.	.	.
		20-24	86	3	3.5	31	36.5	2	2.3	.	.	.	.	.	.	.	.
		25-29	165	4	2.5	46	28.0	2	1.2	.	.	.	.	.	.	.	.
		30-34	161	5	3.1	42	26.3	7	4.4	.	.	.	.	.	.	.	.
		35+	139	2	1.4	26	18.8	11	8.0	.	.	.	.	1	0.7	.	.
	Years since diagnosis	5-9	64	4	6.3	23	35.9	1	1.6	.	.	.	.	.	.	.	.
		10-14	191	6	3.2	43	22.8	1	0.5	.	.	.	.	.	.	.	.
		15-19	192	2	1.0	57	29.8	11	5.8	.	.	.	.	1	0.5	.	.
		20+	134	2	1.5	33	24.8	9	6.8	.	.	.	.	.	.	.	.
	Age at diagnosis	1-4	11	.	.	4	36.4	.	.	.	.	.	.	.	.	.	.
		5-9	76	.	.	26	34.2	3	3.9	.	.	.	.	.	.	.	.
		10-14	221	.	.	69	31.5	7	3.2	.	.	.	.	.	.	.	.
		15-20	273	14	5.2	57	21.0	12	4.4	.	.	.	.	1	0.4	.	.
Females	**All cases**		**573**	**10**	**1.8**	**143**	**25.1**	**25**	**4.4**	**.**	**.**	**.**	**.**	**.**	**.**	**.**	**.**
	Age at baseline	<18	7	.	.	1	14.3	.	.	.	.	.	.	.	.	.	.
		18-19	15	.	.	4	26.7	.	.	.	.	.	.	.	.	.	.
		20-24	98	1	1.0	30	30.9	1	1.0	.	.	.	.	.	.	.	.
		25-29	152	3	2.0	41	27.0	1	0.7	.	.	.	.	.	.	.	.
		30-34	179	4	2.2	47	26.3	11	6.1	.	.	.	.	.	.	.	.
		35+	122	2	1.7	20	16.8	12	10.1	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	55	2	3.6	16	29.6	.	.	.	.	.	.	.	.	.	.
		10-14	171	4	2.3	48	28.1	1	0.6	.	.	.	.	.	.	.	.
		15-19	200	3	1.5	52	26.1	9	4.5	.	.	.	.	.	.	.	.
		20+	147	1	0.7	27	18.6	15	10.3	.	.	.	.	.	.	.	.
	Age at diagnosis	1-4	10	.	.	1	10.0	.	.	.	.	.	.	.	.	.	.
		5-9	75	.	.	24	32.0	4	5.3	.	.	.	.	.	.	.	.
		10-14	271	.	.	69	25.6	11	4.1	.	.	.	.	.	.	.	.
		15-20	217	10	4.7	49	22.9	10	4.7	.	.	.	.	.	.	.	.

CCSS data from the March 2026 freeze; % based on nonmissing values.
Participants had medical record abstraction, a completed baseline questionnaire, and treatment within 5 years of diagnosis.
Drugs with unclear pre-entry start dates were excluded.