

Supplementary material 1 Categories of evidence and grades of recommendations from the immune checkpoint inhibitor clinical practice guideline of Chinese Society of Clinical Oncology (CSCO), version 2020

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**Supplementary material 1 Categories of evidence and grades of recommendations from the immune checkpoint inhibitor clinical practice guideline of Chinese Society of Clinical Oncology (CSCO), version 2020**

Table 1 Categories of evidence of the CSCO guideline

Category	Quality	Source	CSCO expert consensus
1A	High	Well-structured and rigorously controlled meta-analysis, and/or large-scale, randomized controlled clinical trials	Uniform consensus reached (support level: $\geq 80\%$ )
1B	High	Well-structured and rigorously controlled meta-analysis, and/or large-scale, randomized controlled clinical trials	Consensus reached with minimum disagreement (support level: 60%–80%)
2A	Relatively low	Meta-analysis, small-scale, randomized controlled trials, well-designed large-scale retrospective studies, and/or case–control studies	Uniform consensus reached (support level: $\geq 80\%$ )
2B	Relatively low	Meta-analysis, small-scale, randomized controlled trials, well-designed large-scale retrospective studies, and/or case–control studies	Consensus reached with minimum disagreement (support level: 60%–80%)
3	Low	Single-arm clinical studies, case reports, and/or expert opinions	No consensus reached and has major disagreement (support level: $< 60\%$ )

Table 2 Grades of recommendations of the CSCO guideline

Recommendation grade	Criteria
Grade 1	<p>Evidence level 1A and some Evidence level 2A:                      Grade 1 recommendations include Evidence level 1A and some Evidence level 2A which obtained high consensus from the expert panel and has suitable applicability for Chinese cancer patients</p> <p>Specifically, in the CSCO Guidelines, Grade 1 recommendations include the following: universally accepted measures with clear indications for diagnosis and treatment, has adequate applicability for Chinese cancer patients, and is included in the National Reimbursement Drug List (NRDL). The priority for allocating Grade 1 recommendations is solely for the benefits of the patients and is independent to changes regarding commercial medical insurance</p>
Grade 2	<p>Evidence level 1B and some Evidence level 2A:                      Grade 2 recommendations include Evidence level 1B and some Evidence level 2A which obtained satisfactory consensus with minimum disagreements from the expert panel and has limited applicability for Chinese cancer patients</p> <p>Specifically, Grade 2 recommendations include the following: high-level evidence provided by multi-center studies that have been randomly controlled internationally or domestically (in China), but may have limited applicability for Chinese patients or low potency ratio, in addition to drugs or treatments that may exceed the purchasing power of the general public of cancer patients; treatments that are expensive but may have substantial benefits for the patients are also regarded as Grade II recommendations</p>
Grade 3	<p>Evidence level 2B and 3:                      Despite the lack of strong evidence-based data, however, these are recommendations that have obtained satisfactory consensus with minimum disagreements from the expert panel and are provided as a reference for medical personnel usage</p>
Not recommended or objection	<p>Recommendations for which the expert panel has uniform consensus that there is adequate evidence to prove that the drugs or medical technologies do not have sufficient benefits or may even cause harm to Chinese patients. These are labeled as “experts do not recommend” or, when applicable as “experts’ disapproval”. It can be allocated to any grade recommendations</p>

**Supplementary material 2 Characteristics of clinical trials used to estimate the eligibility and benefit <sup>a</sup>**

Cancer types	Total population	Biomarker requirement	Eligible population	Grades of recommendation	Levels of evidence	Study	NCT identifier	Study design	Chinese patients participation	Treatment regimen	ORR (%)
HNSCC (non-nasopharyngeal)	38000	NA	38000	2	1A	KEYNOTE-048	NCT02358031	Phase 3 RCT	Minor	Pembrolizumab + platinum + 5-fluorouracil	36
Nasopharyngeal carcinoma <sup>b</sup>	27000	NA	0	NA	NA	NA	NA	NA	NA	NA	NA
Oesophageal squamous cell carcinoma	188000	NA	188000	1	1A	ESCORT	NCT03099382	Phase 3 RCT	Major	Camrelizumab	20.2
NSCLC (non-squamous) <sup>c</sup>	407626	Without EGFR mutation or ALK, ROS1 rearrangements	220118	2	1A	IMpower 150	NCT02366143	Phase 3 RCT	None	Atezolizumab + paclitaxel + carboplatin + bevacizumab	63.5
NSCLC (squamous) <sup>c</sup>	128724	Without EGFR mutation or ALK, ROS1 rearrangements	69511	1	1A	KEYNOTE-407	NCT02775435	Phase 3 RCT	Minor	Pembrolizumab + carboplatin + paclitaxel/nab-paclitaxel	57.9
SCLC <sup>c</sup>	94650	NA	94650	2	1A	CASPIAN	NCT03043872	Phase 3 RCT	None	Durvalumab + etoposide + carboplatin	68
Breast cancer <sup>b</sup>	70000	NA	0	NA	NA	NA	NA	NA	NA	NA	NA
Gastric cancer <sup>d</sup>	291000	MSI-H	13968	2	2A	KEYNOTE-062	NCT02494583	Phase 3 RCT	Minor	Pembrolizumab	57.1
Gastric cancer	291000	NA	291000	2	1B	ATTRACTION-02	NCT02267343	Phase 3 RCT	Minor	Nivolumab	11.2
Hepatocellular carcinoma <sup>e</sup>	277100	NA	277100	1	1A	IMbrave 150	NCT03434379	Phase 3 RCT	Minor	Atezolizumab + bevacizumab	27.3

Colorectum cancer <sup>f</sup>	187000	MSI-H	9350	2	2A	NA	NCT01876511	Phase 2 single-arm trial	None	Pembrolizumab	52
Renal cell carcinoma (clear cell)	21600	NA	21600	2	1A	KEYNOTE-426	NCT02853331	Phase 3 RCT	Minor	Pembrolizumab + axitinib	60
Renal cell carcinoma (non-clear cell)	5400	NA	5400	2	2B	NA	NA	Retrospective study	None	nivolumab	20
Urothelial carcinoma	33000	NA	33000	2	1A	KEYNOTE-045	NCT02256436	Phase 3 RCT	Minor	pembrolizumab	21.1
Cervical cancer <sup>g</sup>	34000	MSI-H	891	2	2A	NA	NCT01876511	Phase 2 single-arm trial	None	pembrolizumab	54
Cervical cancer <sup>g</sup>	34000	PD-L1 CPS $\geq$ 1	28560	2	2A	KEYNOTE-158	NCT02628067	Phase 2 single-arm trial	Minor	pembrolizumab	14.6
Endometrial cancer <sup>h</sup>	14720	MSI-H	4618	2	2A	NA	NCT01876511	Phase 2 single-arm trial	None	Pembrolizumab	54
Ovary cancer <sup>i</sup>	25000	MSI-H	343	2	2A	NA	NCT01876511	Phase 2 single-arm trial	None	Pembrolizumab	54
Melanoma (cutaneous) <sup>j</sup>	1040	NA	1040	2	2A	CheckMate 067	NCT01844505	Phase 3 RCT	None	Nivolumab + ipilimumab	58

Melanoma (acral) <sup>j</sup>	1672	NA	1672	1	2B	KEYNOTE-006	NCT01866319	Phase 3 RCT	None	Pembrolizumab	42
Melanoma (mucosal) <sup>j</sup>	904	NA	904	2	2A	NA	NCT03086174	Phase 1 single-arm trial	Major	Toripalimab + axitinib	48.3
Classical Hodgkin lymphoma <sup>k</sup>	3240	NA	3240	1	1A	NA	NCT03209973	Phase 2 single-arm trial	Major	Tislelizumab	87.1
PMBCL <sup>k</sup>	1160	NA	1160	2	1A	KEYNOTE-170	NCT02576990	Phase 2 single-arm trial	None	Pembrolizumab	45
Merkel cell carcinoma <sup>l</sup>	NA	NA	NA	2	2B	CheckMate 358	NCT02488759	Phase 2 single-arm trial	Minor	Nivolumab	64
Cutaneous squamous cell carcinoma <sup>l</sup>	NA	NA	NA	1	2A	NA	NCT02760498	Phase 2 single-arm trial	None	Cemiplimab	44

**Abbreviations:** CPS: combined positive score; HNSCC: head and neck squamous cell carcinoma; MSI-H: microsatellite instability-high; NA: not applicable; NSCLC: non-small-cell lung cancer; ORR: objective response rate; PD-L1: programmed cell death ligand-1; PMLBCL: primary mediastinal large B-cell lymphoma; RCT: randomized controlled trial; SCLC: small-cell lung cancer

a The 2015 China cancer mortality data of the National Cancer Center were used to estimate the number of Chinese patients with specific cancer types. The proportion of specific histologic subtypes or biomarker status was estimated using relevant publications as reference[1].

b There was no grade 1 or 2 recommendations of immune checkpoint inhibitors-containing treatment for patients with nasopharyngeal or breast cancer, although the two cancer types were evaluated in the guideline[2].

c NSCLC accounts for 85% of the total lung cancer cases, and SCLC accounts for 15% of the total lung cancer cases. Non-squamous NSCLC accounts for 76% of the total NSCLC cases, and squamous NSCLC accounts for 24% of the total NSCLC cases. Only NSCLC without EGFR mutation, ALK and ROS1 rearrangements was recommended for ICIs treatment, and the estimated proportion was 54% for Asian patients[3].

d The estimated proportion of MSI-H gastric cancer was 4.8% according to a recent meta-analysis of four large randomized controlled trials. The number of eligible gastric cancer patients was calculated by 57.1% multiplying the number of patients with MSI-H gastric cancer plus 11.2% multiplying the number of the rest patients with gastric cancer[4].

e Hepatocellular carcinoma accounts for 85% of the total liver cancer cases[5].

f The estimated proportion of MSI-H colorectal cancer in all metastatic colorectal cancer cases was 5%[6].

g The estimated proportion of MSI-H cervical cancer was 2.62%[7]. The estimated proportion of cervical cancer with the PD-L1 CPS  $\geq 1$  was 84% according to the KEYNOTE-158 study[8]. The number of eligible cervical cancer patients was calculated by 54.1% multiplying the number of patients with MSI-H cervical cancer plus 14.6% multiplying the number of the number of patients with cervical cancer with the PD-L1 CPS  $\geq 1$ .

h Endometrial cancer accounts for 92% of the total cancer of corpus uteri cases[9]. The estimated proportion of MSI-H endometrial cancer was 31.37%[7].

i The estimated proportion of MSI-H ovary cancer was 1.37%[7].

j The estimated proportion of cutaneous melanoma was 26%. The estimated proportion of acral melanoma was 41.8%. The estimated proportion of mucosal melanoma was 22.6%[10].

k The total number of lymphoma-related death was 50000 in China in 2015. Classical Hodgkin lymphoma accounted for 6.48% of the lymphoma-related deaths[11]. Non-Hodgkin lymphoma (NHL) accounted for 92.8% of the lymphoma-related deaths, and PMLBCL accounted for 2.5% of the NHL-related deaths[12].

l There were no available death statistics for Chinese patients with Merkel cell carcinoma or cutaneous squamous cell carcinoma, and the two cancer types were not calculated for eligibility or benefit.

## References

1. Zhang, S., et al., *Cancer incidence and mortality in China, 2015*. Journal of the National Cancer Center, 2020.
2. Jie Chen, J.G., Ye Guo, Jin Li, Meng-Xia Li, Xiu-Feng Liu, Rong-Cheng Luo, Zhi Peng, Shu-Kui Qin, Wen-Sheng Qiu, Lu Si, Chun-Xia Su, Jian-Guo Sun, Jun Wang, Bao-Cheng Wang, Yun-Peng Yang, Zhen-Zhou Yang, Ding-Wei Ye, Ying Yuan, Li Zhang, Hong-Mei Zhang, Xiao-Tian Zhang, Bi-Cheng Zhang, Cai-Cun Zhou, Bo Zhu, Yu Zhu *Guidelines of Chinese Society of Clinical Oncology (CSCO): Immune Checkpoint Inhibitor Clinical Practice*. 2020, Beijing, China: People's Medical Publishing House.

3. Hirsch, F.R., et al., *Lung cancer: current therapies and new targeted treatments*. Lancet, 2017. **389**(10066): p. 299-311.
4. Pietrantonio, F., et al., *Predictive role of microsatellite instability for PD-1 blockade in patients with advanced gastric cancer: a meta-analysis of randomized clinical trials*. ESMO Open, 2021. **6**(1): p. 100036.
5. Sung, H., et al., *Global cancer statistics 2020: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries*. CA Cancer J Clin, 2021.
6. Benson, A.B., et al., *Colon Cancer, Version 2.2021, NCCN Clinical Practice Guidelines in Oncology*. J Natl Compr Canc Netw, 2021. **19**(3): p. 329-359.
7. Bonneville, R., et al., *Landscape of Microsatellite Instability Across 39 Cancer Types*. JCO Precis Oncol, 2017. **2017**.
8. Chung, H.C., et al., *Efficacy and Safety of Pembrolizumab in Previously Treated Advanced Cervical Cancer: Results From the Phase II KEYNOTE-158 Study*. J Clin Oncol, 2019. **37**(17): p. 1470-1478.
9. Saso, S., et al., *Endometrial cancer*. Bmj, 2011. **343**: p. d3954.
10. Chi, Z., et al., *Clinical presentation, histology, and prognoses of malignant melanoma in ethnic Chinese: a study of 522 consecutive cases*. BMC Cancer, 2011. **11**: p. 85.
11. Liu, W., et al., *Burden of lymphoma in China, 2006-2016: an analysis of the Global Burden of Disease Study 2016*. J Hematol Oncol, 2019. **12**(1): p. 115.
12. Martelli, M., et al., *Primary mediastinal large B-cell lymphoma*. Crit Rev Oncol Hematol, 2017. **113**: p. 318-327.

**Supplementary material 3 Population of eligibility and benefit of immune checkpoint inhibitors for different cancer types <sup>a</sup>**

Cancer types, No, (% 95% CI [%])	Total population	Eligibility	Benefit	Male population	Male eligibility	Male benefit	Female population	Female eligibility	Female benefit
All cancers	2338000 (100)	1290156 (55.18, 55.12-55.25)	448972 (19.20, 19.15-19.25)	1480000 (100)	888738 (60.05, 59.97-60.13)	309023 (20.88, 20.81-20.95)	858000 (100)	400468 (46.67, 46.57-46.78)	139764 (16.29, 16.21-16.37)
Evaluable cancer types <sup>b</sup>	1896820 (81.13, 81.08-81.18)	1290156 (55.18, 55.12-55.25)	448972 (19.20, 19.15-19.25)	1211200 (81.84, 81.78-81.90)	888738 (60.05, 59.97-60.13)	309023 (20.88, 20.81-20.95)	685620 (79.91, 79.82-79.99)	400468 (46.67, 46.57-46.78)	139764 (16.29, 16.21-16.37)
Evaluable cancer types without eligibility	587964 (25.15, 25.09-25.20)	NA	NA	311037 (21.02, 20.95-21.08)	NA	NA	276927 (32.28, 32.18-32.37)	NA	NA
Evaluable cancer types with eligibility or benefit	1896820 (81.13, 81.08-81.18)	1290156 (55.18, 55.12-55.25)	448972 (19.20, 19.15-19.25)	1211200 (81.84, 81.78-81.90)	888738 (60.05, 59.97-60.13)	309023 (20.88, 20.81-20.95)	685620 (79.91, 79.82-79.99)	400468 (46.67, 46.57-46.78)	139764 (16.29, 16.21-16.37)
HNSCC (non- nasopharyngeal)	38000 (1.63, 1.61-1.64)	38000 (1.63, 1.61-1.64)	13680 (0.59, 0.58-0.59)	29000 (1.96, 1.94-1.98)	29000 (1.96, 1.94-1.98)	10440 (0.71, 0.69-0.72)	9000 (1.05, 1.03-1.07)	9000 (1.05, 1.03-1.07)	3240 (0.38, 0.36-0.39)
Nasopharyngeal carcinoma	27000 (1.15, 1.14-1.17)	0	0	20000 (1.35, 1.33-1.37)	0	0	7000 (0.82, 0.80-0.83)	0	0
Oesophageal squamous cell carcinoma	188000 (8.04, 8.01- 8.08)	188000 (8.04, 8.01- 8.08)	37976 (1.62, 1.61-1.64)	137000 (9.26, 9.21- 9.30)	137000 (9.26, 9.21- 9.30)	27674 (1.87, 1.85-1.89)	51000 (5.94, 5.89-5.99)	51000 (5.94, 5.89-5.99)	10302 (1.20, 1.18-1.22)
Lung cancer	631000 (26.99, 26.93-27.05)	384279 (16.44, 16.39-16.48)	244384 (10.45, 10.41-10.49)	433500 (29.29, 29.22-29.36)	264002 (17.84, 17.78-17.90)	167893 (11.34, 11.29-11.40)	197500 (23.02, 22.93-23.11)	120278 (14.02, 13.94-14.09)	76491 (8.92, 8.85-8.98)

NSCLC	536350 (22.94, 22.89-22.99)	289629 (12.39, 12.35-12.43)	180022 (7.70, 7.67- 7.73)	368475 (24.90, 24.83-24.97)	198977 (13.44, 13.39-13.50)	123676 (8.36, 8.31- 8.40)	167875 (19.57, 19.48-19.65)	90653 (10.57, 10.50-10.63)	56346 (6.57, 6.51-6.62)
SCLC	94650 (4.05, 4.02-4.07)	94650 (4.05, 4.02-4.07)	64362 (2.75, 2.73-2.77)	65025 (4.39, 4.36-4.43)	65025 (4.39, 4.36-4.43)	44217 (2.99, 2.96-3.02)	29625 (3.45, 3.41-3.49)	29625 (3.45, 3.41-3.49)	20145 (2.35, 2.32-2.38)
Breast cancer	70000 (2.99, 2.97-3.02)	0	0	NA	NA	NA	70000 (8.16, 8.10-8.22)	0	0
Gastric cancer	291000 (12.45, 12.40-12.49)	291000 (12.45, 12.40-12.49)	61977 (2.65, 2.63-2.67)	201000 (13.58, 13.53-13.64)	201000 (13.58, 13.53-13.64)	42809 (2.89, 2.87-2.92)	90000 (10.49, 10.42-10.55)	90000 (10.49, 10.42-10.55)	19168 (2.23, 2.20-2.27)
Gastric cancer: MSI-H	64020 (2.74, 2.72-2.76)	13968 (0.60, 0.59-0.61)	7976 (0.34, 0.33-0.35)	9648 (0.65, 0.64-0.66)	9648 (0.65, 0.64-0.66)	5509 (0.37, 0.36-0.38)	4320 (0.50, 0.49-0.52)	4320 (0.50, 0.49-0.52)	2467 (0.29, 0.28-0.30)
Gastric cancer: not specified	291000 (12.45, 12.40-12.49)	277032 (11.85, 11.81-11.89)	31028 (1.33, 1.31-1.34)	201000 (13.58, 13.53-13.64)	191352 (12.93, 12.88-12.98)	21431 (1.45, 1.43-1.47)	90000 (10.49, 10.42-10.55)	85680 (9.99, 9.92-10.05)	9596 (1.12, 1.10-1.14)
Hepatocellular carcinoma	277100 (11.85, 11.81-11.89)	277100 (11.85, 11.81-11.89)	75648 (3.24, 3.21-3.26)	205700 (13.90, 13.84-13.95)	205700 (13.90, 13.84-13.95)	56156 (3.79, 3.76-3.83)	71400 (8.32, 8.26-8.38)	71400 (8.32, 8.26-8.38)	19492 (2.27, 2.24-2.30)
Colorectal cancer	187000 (8.00, 7.96- 8.03)	9350 (0.40, 0.39-0.41)	4862 (0.21, 0.20-0.21)	109500 (7.40, 7.36- 7.44)	5500 (0.37, 0.36-0.38)	2860 (0.19, 0.19-0.20)	77500 (9.03, 8.97-9.09)	3900 (0.45, 0.44-0.47)	2028 (0.24, 0.23-0.25)
Colorectal cancer: MSI-H	9350 (0.40, 0.39-0.41)	9350 (0.40, 0.39-0.41)	4862 (0.21, 0.20-0.21)	109500 (7.40, 7.36- 7.44)	5500 (0.37, 0.36-0.38)	2860 (0.19, 0.19-0.20)	77500 (9.03, 8.97-9.09)	3900 (0.45, 0.44-0.47)	2028 (0.24, 0.23-0.25)
Renal cell carcinoma	27000 (1.15, 1.14-1.17)	27000 (1.15, 1.14-1.17)	14040 (0.60, 0.59-0.61)	17000 (1.15, 1.13-1.17)	17000 (1.15, 1.13-1.17)	8840 (0.60, 0.58-0.61)	10000 (1.17, 1.14-1.19)	10000 (1.17, 1.14-1.19)	5200 (0.61, 0.59-0.62)

Clear cell renal cell carcinoma	21600 (0.92, 0.91-0.94)	21600 (0.92, 0.91-0.94)	12960 (0.55, 0.54-0.56)	13600 (0.92, 0.90-0.93)	13600 (0.92, 0.90-0.93)	8160 (0.55, 0.54-0.56)	8000 (0.93, 0.91-0.95)	8000 (0.93, 0.91-0.95)	4800 (0.56, 0.54-0.58)
Non-clear cell renal cell carcinoma	5400 (0.23, 0.22-0.24)	5400 (0.23, 0.22-0.24)	1080 (0.05, 0.04-0.05)	3400 (0.23, 0.22-0.24)	3400 (0.23, 0.22-0.24)	680 (0.05, 0.04-0.05)	2000 (0.23, 0.22-0.24)	2000 (0.23, 0.22-0.24)	400 (0.05, 0.04-0.05)
Urothelial carcinoma	33000 (1.41, 1.40-1.43)	33000 (1.41, 1.40-1.43)	6963 (0.30, 0.29-0.30)	25500 (1.72, 1.70-1.74)	25500 (1.72, 1.70-1.74)	5381 (0.36, 0.35-0.37)	7500 (0.87, 0.85-0.89)	7500 (0.87, 0.85-0.89)	1583 (0.18, 0.18-0.19)
Cervical cancer	34000 (1.45, 1.44-1.47)	29451 (1.26, 1.25-1.27)	4651 (0.20, 0.19-0.20)	NA	NA	NA	34000 (3.96, 3.92-4.00)	29451 (3.43, 3.39-3.47)	4651 (0.54, 0.53-0.56)
Cervical cancer: MSI-H	891 (0.04, 0.04-0.04)	891 (0.04, 0.04-0.04)	481 (0.02, 0.02-0.02)	NA	NA	NA	891 (0.10, 0.10-0.11)	891 (0.10, 0.10-0.11)	481 (0.06, 0.05-0.06)
Cervical cancer: PD-L1 CPS $\geq$ 1	28560 (1.22, 1.21-1.24)	28560 (1.22, 1.21-1.24)	4170 (0.18, 0.17-0.18)	NA	NA	NA	28560 (3.33, 3.29-3.37)	28560 (3.33, 3.29-3.37)	4170 (0.49, 0.47-0.50)
Endometrial cancer	14720 (0.63, 0.62-0.64)	4618 (0.20, 0.19-0.20)	2494 (0.11, 0.10-0.11)	NA	NA	NA	14720 (1.72, 1.69-1.74)	4618 (0.54, 0.52-0.55)	2494 (0.29, 0.28-0.30)
Endometrial cancer: MSI-H	4618 (0.20, 0.19-0.20)	4618 (0.20, 0.19-0.20)	2494 (0.11, 0.10-0.11)	NA	NA	NA	4618 (0.54, 0.52-0.55)	4618 (0.54, 0.52-0.55)	2494 (0.29, 0.28-0.30)
Ovary cancer	25000 (1.07, 1.06-1.08)	343 (0.01, 0.01-0.02)	185 (0.01, 0.01-0.01)	NA	NA	NA	25000 (2.91, 2.88-2.95)	343 (0.04, 0.04-0.04)	185 (0.02, 0.02-0.02)
Ovary cancer: MSI-H	343 (0.01, 0.01-0.02)	343 (0.01, 0.01-0.02)	185 (0.01, 0.01-0.01)	NA	NA	NA	343 (0.04, 0.04-0.04)	343 (0.04, 0.04-0.04)	185 (0.02, 0.02-0.02)
Melanoma	4000 (0.17, 0.17-0.18)	3616 (0.15, 0.15-0.16)	1742 (0.07, 0.07-0.08)	2000 (0.14, 0.13-0.14)	1808 (0.12, 0.12-0.13)	871 (0.06, 0.05-0.06)	2000 (0.23, 0.22-0.24)	1808 (0.21, 0.20-0.22)	871 (0.10, 0.09-0.11)
Cutaneous melanoma	1040 (0.04, 0.04-0.05)	1040 (0.04, 0.04-0.05)	603 (0.03, 0.02-0.03)	520 (0.04, 0.03-0.04)	520 (0.04, 0.03-0.04)	302 (0.02, 0.02-0.02)	520 (0.06, 0.06-0.07)	520 (0.06, 0.06-0.07)	302 (0.04, 0.03-0.04)
Acral melanoma	1672 (0.07, 0.07-0.07)	1672 (0.07, 0.07-0.07)	702 (0.03, 0.03-0.03)	836 (0.06, 0.05-0.06)	836 (0.06, 0.05-0.06)	351 (0.02, 0.02-0.03)	836 (0.10, 0.09-0.10)	836 (0.10, 0.09-0.10)	351 (0.04, 0.04-0.05)

Mucosal melanoma	904 (0.04, 0.04-0.04)	904 (0.04, 0.04-0.04)	437 (0.02, 0.02-0.02)	452 (0.03, 0.03-0.03)	452 (0.03, 0.03-0.03)	218 (0.01, 0.01-0.02)	452 (0.05, 0.05-0.06)	452 (0.05, 0.05-0.06)	218 (0.03, 0.02-0.03)
Lymphoma	50000 (2.14, 2.12-2.16)	4400 (0.19, 0.18-0.19)	3344 (0.14, 0.14-0.15)	31000 (2.09, 2.07-2.12)	2728 (0.18, 0.18-0.19)	2073 (0.14, 0.13-0.15)	19000 (2.21, 2.18-2.25)	1672 (0.19, 0.19-0.20)	1271 (0.15, 0.14-0.16)
Classical Hodgkin lymphoma	3240 (0.14, 0.13-0.14)	3240 (0.14, 0.13-0.14)	2822 (0.12, 0.12-0.13)	2009 (0.14, 0.13-0.14)	2009 (0.14, 0.13-0.14)	1750 (0.12, 0.11-0.12)	1231 (0.14, 0.14-0.15)	1231 (0.14, 0.14-0.15)	1072 (0.12, 0.12-0.13)
PMLBCL	1160 (0.05, 0.05-0.05)	1160 (0.05, 0.05-0.05)	522 (0.02, 0.02-0.02)	719 (0.05, 0.05-0.05)	719 (0.05, 0.05-0.05)	324 (0.02, 0.02-0.02)	441 (0.05, 0.05-0.06)	441 (0.05, 0.05-0.06)	198 (0.02, 0.02-0.03)
Unevaluable cancer types <sup>a</sup>	441180 (18.87, 18.82-18.92)	NA	NA	268800 (18.16, 18.10-18.22)	NA	NA	172380 (20.09, 20.01-20.18)	NA	NA
Gallbladder cancer	41000 (1.75, 1.74-1.77)	NA	NA	19000 (1.28, 1.27-1.30)	NA	NA	22000 (2.56, 2.53-2.60)	NA	NA
Pancreatic cancer	85000 (3.64, 3.61-3.66)	NA	NA	48000 (3.24, 3.21-3.27)	NA	NA	37000 (4.31, 4.27-4.36)	NA	NA
Cancers of other thoracic organs	7000 (0.30, 0.29-0.31)	NA	NA	4000 (0.27, 0.26-0.28)	NA	NA	3000 (0.35, 0.34-0.36)	NA	NA
Bone cancer	18000 (0.77, 0.76-0.78)	NA	NA	11000 (0.74, 0.73-0.76)	NA	NA	7000 (0.82, 0.80-0.83)	NA	NA
Prostate cancer	31000 (1.33, 1.31-1.34)	NA	NA	31000 (2.09, 2.07-2.12)	NA	NA	#VALUE!	NA	NA
Testis cancer	1000 (0.04, 0.04-0.05)	NA	NA	1000 (0.07, 0.06-0.07)	NA	NA	#VALUE!	NA	NA
Cancers of brain or CNS	56000 (2.40, 2.38-2.41)	NA	NA	31000 (2.09, 2.07-2.12)	NA	NA	25000 (2.91, 2.88-2.95)	NA	NA

Thyroid cancer	8000 (0.34, 0.33-0.35)	NA	NA	3000 (0.20, 0.20-0.21)	NA	NA	5000 (0.58, 0.57-0.60)	NA	NA
Leukemia	54000 (2.31, 2.29-2.33)	NA	NA	32000 (2.16, 2.14-2.19)	NA	NA	22000 (2.56, 2.53-2.60)	NA	NA
Cancers of all other sites	90000 (3.85, 3.82-3.87)	NA	NA	53000 (3.58, 3.55-3.61)	NA	NA	37000 (4.31, 4.27-4.36)	NA	NA

**Abbreviations:** CI: confidence interval; CNS: central nervous system; CPS: combined positive score; HNSCC: head and neck squamous cell carcinoma; MSI-H: microsatellite instability-high; NA: not applicable; NSCLC: non-small-cell lung cancer; PD-L1: programmed cell death ligand-1; PMLBCL: primary mediastinal large B-cell lymphoma; SCLC: small-cell lung cancer

a The percentage of patients with eligibility and response was calculated using the population divided by the total number of cancer deaths. For sex-specific eligibility and response, the population was calculated using the sex-specific cancer deaths data, and the percentage was calculated using the population divided by the total number of sex-specific cancer deaths.

b Evaluable cancer types were defined as cancer types that were listed in the CSCO guideline; unevaluable cancer types were defined as cancer types that were not listed in the CSCO guideline.