

**Table S1. Incomplete Reports: Suspected DIRE Cases**

Disease	Rx Setting	DIRE	Post IO	Drug	Doses (total)	Notes
Melanoma	Adjuvant	Adrenal Insufficiency; Inflammatory Arthritis	≥ 4 months	Pembrolizumab followed by Ipilimumab	unknown	Luu and Major, 2018;[20] On-treatment irAE: Hepatitis; Interim treatments: Corticosteroids (taper completed 2 weeks prior to adrenal crisis)
Melanoma	Adjuvant	Marrow aplasia	> 100 days <sup>a</sup>	Ipilimumab	≥4	Weber et al, 2017[21]
Melanoma	Adjuvant	Colitis	> 100 days <sup>a</sup>	Ipilimumab	≥4	Weber et al, 2017[21]
Melanoma	Uresectable	Hepatitis	234 days <sup>a</sup>	Ipilimumab + Nivolumab	4 (Ipi); <sup>b</sup> 36 (Nivo) <sup>b</sup>	Wolchok et al, 2017[22]
NSCLC	Metastatic	Graves Orbitopathy	6 months <sup>b</sup>	Nivolumab (+docetaxel)	14 <sup>b</sup>	Ricciuti et al, 2017;[23] On-treatment irAE: Pneumonitis; Interim treatments: Corticosteroids
Melanoma	Metastatic	Hypothyroidism	> 90 days	Ipilimumab	4	Yamazaki et al, 2015[24]
Melanoma	Metastatic	Hypopituitarism	> 90 days	Ipilimumab	4	Yamazaki et al, 2015[24]
Melanoma	Metastatic	Vitiligo	> 90 days	Ipilimumab	4	Yamazaki et al, 2015[24]
Melanoma	Metastatic	Hypophysitis	> 70 days	Ipilimumab (+dacarbazine)	6 <sup>b</sup>	Robert et al, 2011[25]
Melanoma	Metastatic	Vitiligo	> 70 days	Ipilimumab	≥4	McDermott et al, 2013[26]
Melanoma	Metastatic	Vitiligo	> 70 days	Ipilimumab	≥4	McDermott et al, 2013[26]
Melanoma	Metastatic	Vitiligo	> 70 days	Ipilimumab	≥4	McDermott et al, 2013[26]
Melanoma	Metastatic	Vitiligo; Hypothyroidism	> 70 days	Ipilimumab	≥4	McDermott et al, 2013[26]
Melanoma	Metastatic	Hypogonadism	> 70 days	Ipilimumab + gp100	≥4 (Ipi); ≥4 (gp100)	McDermott et al, 2013[26]
Melanoma	Metastatic	Colitis; Proctitis	> 70 days	Ipilimumab + gp100	≥4 (Ipi); ≥4 (gp100)	McDermott et al, 2013[26]
Melanoma	Metastatic	Vitiligo	> 70 days	gp100	≥4	McDermott et al, 2013[26]

Abbreviations: IO, immuno-oncology; NSCLC, non-small cell lung cancer; Nivo, nivolumab; Ipi, ipilimumab

<sup>a</sup> Refers to timing of treatment-related death; timing of irAE diagnosis was not specified.

<sup>b</sup> Estimate from article narrative.