

Supplementary material 1. Search strategy

Pubmed	<p>(lung neoplasms[Mesh] OR lung cance*[tiab] OR lung neoplas*[tiab]) AND ("Programmed Cell Death 1 Receptor/antagonists and inhibitors"[Mesh] OR PD-1[tiab] OR PD1[tiab] OR PD-L1[tiab] OR CTLA4[tiab] OR CTLA-4[tiab] OR cytotoxic T-lymphocyte-associated protein 4[tiab] OR PDL1[tiab] OR Programmed Cell Death 1*[tiab] OR Immune Checkpoint*[tiab] OR nivolumab[tiab] OR pembrolizumab[tiab] OR atezolizumab[tiab] OR durvalumab[tiab] OR cemiplimab[tiab] OR avelumab[tiab] OR monoclonal antibodies [tiab] OR ipilimumab[tiab] OR tremelimumab[tiab]) AND (drug related side effects and adverse reactions[Mesh] OR adverse reactio*[tiab] OR adverse even*[tiab] OR side effec*[tiab]) AND (risk factor[Mesh] OR risk facto*[tiab] OR predicto*[tiab] OR exposur*[tiab]) AND ("2000/01/01"[Date - Publication] : "2020/11/12"[Date - Publication])</p>
Embase	<p>('lung tumor'/exp OR 'lung tumor':ab,ti OR 'lung cancer':ab,ti OR 'lung neoplasm*':ab,ti) AND ('pdl1 gene'/exp OR 'immune checkpoint inhibitor'/exp OR 'immunomodulating agent'/exp OR 'immunomodulating agent':ab,ti OR 'avelumab':ab,ti OR 'cemiplimab':ab,ti OR 'durvalumab':ab,ti OR 'atezolizumab':ab,ti OR 'pembrolizumab':ab,ti OR 'nivolumab':ab,ti OR 'pdl1':ab,ti OR 'pd1':ab,ti OR 'immune checkpoint inhibitor':ab,ti OR 'tremelimumab':ab,ti OR 'ipilimumab':ab,ti OR 'ctla4':ab,ti OR 'ctla-4':ab,ti OR 'cytotoxic T-lymphocyte-associated protein 4':ab,ti) AND ('side effect'/exp OR 'side effect':ab,ti OR 'adverse drug reaction'/exp OR 'adverse drug reaction':ab,ti OR 'adverse event'/exp OR 'adverse event':ab,ti) AND ('risk factor'/exp OR 'risk factor':ab,ti OR 'exposure'/exp OR exposure:ab,ti OR predicto*:ab,ti) AND [article]/lim AND [embase]/lim NOT ([embase]/lim AND [medline]/lim) AND [2000-2020]/py</p>
Web of science	<p>TS=("lung neoplasms" OR "lung cance*" OR "lung neoplas*") AND TS= ("Immune Checkpoint Inhibit*" OR "PD-1" OR "PD-L1" OR "PD1" OR "PDL1" OR "avelumab" OR "cemiplimab" OR "durvalumab" OR "atezolizumab" OR "pembrolizumab" OR "nivolumab" OR "CTLA-4" OR "CTLA4" OR "tremelimumab" OR " ipilimumab" OR " cytotoxic T-lymphocyte-associated protein 4") AND TS= ("drug related side effects" OR "adverse reactio*" OR "adverse even*" OR "side effec*") AND TS= ("risk facto*" OR "predicto*" OR "exposur*")</p>