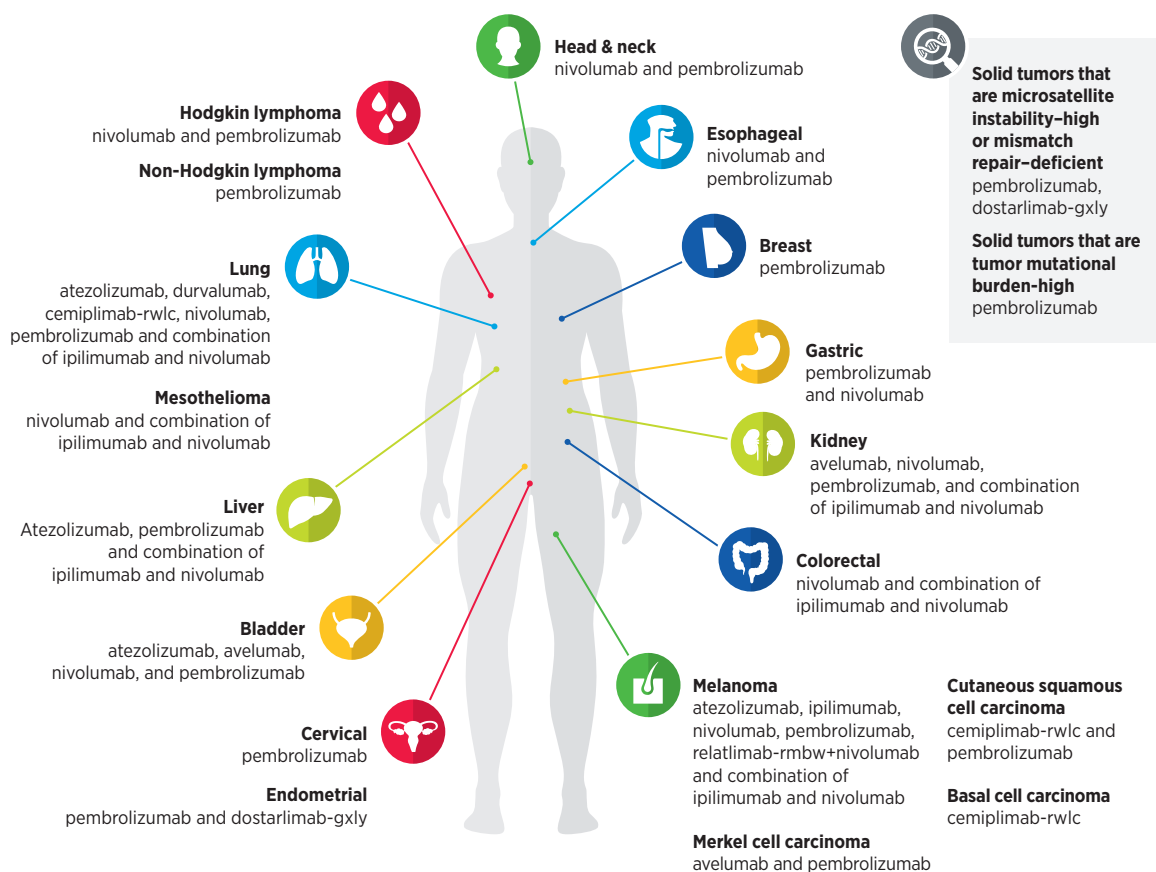


**FIGURE 12**

## The Expanding Utility of Immune Checkpoint Inhibitors



In March 2011, FDA approved the first immune checkpoint inhibitor (ICI), ipilimumab (Yervoy), for metastatic melanoma. Nearly four years later, a second ICI, pembrolizumab (Keytruda), was approved, also for metastatic melanoma. Since then, another seven ICIs have been approved by FDA and include: atezolizumab (Tecentriq), avelumab (Bavencio), cemiplimab-rwlc (Libtayo), dostarlimab-gxly (Jemperli), durvalumab (Imfinzi), nivolumab (Opdivo), and the anti-LAG-3 antibody relatlimab in combination with nivolumab (Opdualag). In addition, FDA has expanded the number of cancer types for

which there is at least one ICI approved. The broad utility of these groundbreaking immunotherapeutics is highlighted by the fact that as of July 31, 2022, one or more checkpoint inhibitors were approved for treating 18 types of cancer and for treating any type of solid tumor characterized by the presence of certain molecular characteristics, including microsatellite instability-high, DNA mismatch-repair deficiency, and tumor mutational burden-high. In addition, with all the ICIs approved for treating multiple types of cancer, there are several cancer types for which there is a great selection of ICIs available as treatment options.