

Supplemental table 1. Protocol for rapid corticosteroid taper for ICI-induced nephritis

Permanently discontinue AIN-associated medications (PPI, allopurinol, NSAIDS, antibiotics)

Temporarily hold ICI

Begin prednisone 1mg/kg/day

In hospitalized patients, consider 1-3 days of intravenous methylprednisolone

Repeat creatinine in 5-7 days provided creatinine is improving by $\geq 25\%$, continue rapid taper

Rapid corticosteroid taper: 40mg x 3 days, 30mg x 3 days, 20mg x 3 days, 10mg daily

Repeat creatinine every 7 days and continue taper as long as creatinine continues to decline.

If creatinine rises, restart 60mg day and taper over 4-6 weeks

If requiring corticosteroid ≥ 20 mg/day prednisone equivalent for > 14 days consider adding atovaquone for PJP prophylaxis

Use H2 blocker for gastric ulcer prophylaxis

Counsel patient to avoid NSAIDS and over-the-counter PPI

Supplemental Table 1 Abbreviations: AIN = acute interstitial nephritis, PPI = proton pump inhibitor, NSAIDS = nonsteroidal anti-inflammatory drugs, ICI = immune checkpoint inhibitor, PJP = *Pneumocystis jirovecii* pneumonia, H2 = histone 2

Supplemental Figure 1. Time to renal recovery among patients exposed to AIN-associated medications compared to those who did not receiving AIN meds during their corticosteroid taper.

Supplemental Figure 1. Recovery of ICI-induced nephritis was defined as serum creatinine returning to less than 1.5 times the baseline creatinine. AIN-associated medications, including proton pump inhibitors or trimethoprim-sulfamethoxazole were given to 11 patients and 16 did not have exposure to AIN-associated medications. Curves are plotted as 1-survival probability and compared via log-rank test.

Supplemental Table 2: Effect of discontinuation of AIN meds on time to recovery stratified by treatment group

Treatment group	N	Days to recovery, mean (SD)
<u>Rapid Taper*</u>		
Ongoing AIN-med exposure**	2	16 (3)
No exposure to AIN meds	10	16 (20)
<u>Standard of Care Taper</u>		
Ongoing AIN-med exposure	9	72 (74)
No exposure to AIN meds	5	39 (23)

*One patient in the rapid taper group did not achieve renal recovery, this patient was not exposed to AIN-meds.

**One patient in the rapid-taper group who was exposed to AIN-meds achieve remission but then relapsed