QUIZ 10/3/2025

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The commonest pathology in Acute Kidney Injury caused by immune check point inhibitors is

- A. Acute Tubular Necrosis
- B. Acute interstitial nephritis
- C. Thrombotic Microangiopathy
- D. Collapsing Glomerulopathy

Answer: B Acute interstitial nephritis

ICIs are mAbs directed against negative regulatory receptor checkpoints of T-cell immunity

- Cytotoxic T-lymphocyte—associated antigen 4 (CTLA-4) ipilimumab
- ➤ Programmed death-1 (PD-1) and PD-1 ligand (PD-L1) pathway (PD-1/PD-ligand-1 [PD-L1]) receptors) such as cemiplimab, nivolumab, pembrolizumab (PD-1), and atezolizumab, avelumab, and durvalumab (PD-L1), which prevent T-cell activation
- > nephrotoxicity occurs in up to 2% to 5%
- > AKI is the most common kidney IRAE from ICIs, and AIN is the most reported histopathologic finding
- MCD, FSGS, MN, lupus nephritis also described

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Question No: 2

Logistic Regression models are evolved from patient data sets to develop Acute Kidney injury Mortality scores. One of the ways of validating such data sets is resampling the data with replacement to create many simulated samples. This statistical technique is called

- A. Data splitting
- B. Jack Knifing
- C. Bootstrapping
- D. Cross Validation

Ans: C Bootstrapping

- Bootstrapping is a resampling technique used in statistics to estimate the sampling distribution of a statistic by repeatedly resampling with replacement from the original data
- In the context of acute kidney injury (AKI) prediction models, bootstrapping can be used to assess the stability and performance of the model, estimate confidence intervals for predictions, and validate the model's generalizability
- For each bootstrap sample, a predictive model like logistic regression, is trained. The model's performance is then evaluated on a portion of the data not included in the bootstrap sample
- For risk scoring systems for AKI, bootstrapping can assess the stability of these scores across different populations or conditions

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Thank You