

## MY TOP 5 TAKES ON A PAPER TITLED

# Piperacillin-Tazobactam Added to Vancomycin Increases Risk for AKI: Fact or Fiction?

PT= Piperacillin-tazobactam, V= vancomycin

## 1 AKI RISK BY THE NUMBERS

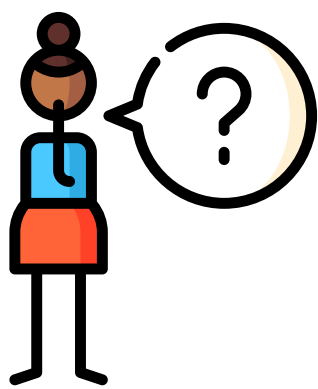
Vancomycin on its own increases the AKI risk by 10%. When PT is added to the V, the odds increase even further according to studies.

**Fact or fiction?**

## 2 ISSUES WITH AKI DEFINITION

**Could this AKI be "overzealously" detected by serum creatinine (SCr)?**

The reasons: It is neither specific nor sensitive. Besides, its steady state following AKI is delayed esp. in CKD patients.



**3 Majority of meta-analyses used the same pool of retro data** and all reported increased AKI risk with the combo. Questions remain reg. their

- High heterogeneity
- Publication bias
- Possibly lower than reported estimate of AKI risk

## 4 PT CAN ALSO BLUR THE PICTURE

SCr was used in these studies to detect AKI with multiple classifications employed including AKIN and RIFLE.

Additionally, PT may also increase SCr by inhibiting its secretion pathway (SCr is filtrated **AND secreted** into renal tubules) **without causing "real" AKI.**

## 5 CONTINUE TO BE MYSTIFIED!

Therefore, questions remain regarding the causality if indeed PT+V causes AKI.

**Why the questions?**

The use of flawed surrogate (SCr) for glomerulus function confounds this causality and could lead to the current (**incorrect?**) findings.