

Physician MEMO

To | All Medical Staff
From | Charles Matheson, Pharm D
Director of Clinical Pharmacy
Date | December 12, 2011
Re | **IV Vancomycin Monitoring**

Situation: IV vancomycin has been known to be implicated in inducing acute renal toxicity, especially when used concomitantly with other nephrotoxic drugs.

Background: A recent event happened within Novant where a pediatric patient received IV vancomycin for close to 5 days before a drug level was obtained. The patient developed acute renal insufficiency, and thus had an elevated vancomycin level once drawn. The patient was transferred to another facility.

Whether vancomycin was fully or partially responsible for this renal insufficiency is still unknown. Regardless, it is clear that had either a drug level or chemistries been drawn earlier, some type of intervention could have been initiated sooner.

Assessment: Pharmacy met to determine what interventions could be implemented to minimize the risk of a similar event. In addition, the SPR Pediatric QDT met and determined that physician education regarding vancomycin was needed, and also decided that communication from pharmacy to the physician should be made IF **no** vancomycin levels were ordered with the original or subsequent order(s). Recommended time prompts for pharmacy to contact physician if no drug levels are ordered include:

Pediatric patient:	Communication beginning with hour 25 (> 24 hours)
Neonate patient:	Communication beginning with hour 49 (allows for a 48 hour rule-out).
Adult patient:	Communication beginning with hour 121 (> 5 days)

Of note, if Pharmacy has been consulted, or if Pharmacy doses ALL patients on vancomycin, the above rule is NOT valid, since pharmacy will be responsible for the entire management process.

Recommendation: Pharmacy WILL contact the physician ordering vancomycin IV IF:

- 1) No vancomycin level(s) are written within the hours specified above (age determinant).
- 2) Pharmacy WILL document this communication by one of three methods:
 - a) Pharmacy to Dose vancomycin – alleviates this rule (as pharmacy is accountable for the process)
 - b) Pharmacy will put an order on the Physician Order Sheet (ordering a vancomycin level based on this communication)
 - c) Pharmacy will put a note in the Progress Notes, stating no levels are necessary at this time – (from our communication with the MD)