

For hospitals that are doing a large number of CT perfusion, how are they managing patients that are arriving with stroke symptoms and have a documented history of renal disease?

- We do an ISTAT creatinine which provides rapid turn around with the creatinine results.
- We have just purchased a 64 slice CT scanner and consequently are giving a reduced amount of contrast. We do the scan without a creatinine and treat the patient with an IV fluids protocol and discontinuation of metformin containing medications for 48 hours post-administration. We only do the CT angio head/neck and brain perfusion tests STAT on patients who have significant deficits and are within a 6 hour window from time of onset.
- We do a lot of CTA's, but if a patient has a known history of renal disease, we may do a MRI/MRA instead. We have the capability to do a "stroke protocol" MRI/MRA that is an 11 min scan.
- As part of our stroke code process, an extra tube of blood is drawn and sent with the patient to CT scan at which point the CT techs run an i-STAT creatinine prior to the scan.
- We check a GFR and serum creat on all stroke protocol patients. If their creat is over 1.3, then we obtain an order for a Carotid Doppler and cancel the CT Angio.
- Even though we have not done a large number of CT Perfusions, our Supervisor of CT/MRI said that Radiology would contact the Primary Care Physician or Radiologist and assess the risk/benefit for that patient and decide on a case by case basis if the patient could handle the contrast due to the renal disease and possible consider dialyzing the patient later.