Dear Clinicians,

Fascinating story of capitalism in medicine! How in the world does an inferior drug come to dominate the antihypertensive market despite an abundance of data favoring another diuretic? Yes, it is unfortunate that hydrochlorothiazide (HCTZ) is the dominant diuretic in the markets today and for the past few decades. However, it is accepted in hypertension circles that chlorthalidone (CTD) is the far superior thiazide-type diuretic. This should NOT be a secret anymore! CTD is more potent and has a much longer period of BP lowering effectiveness, making it a drug that assuredly provides 24-hr coverage with once-daily dosing. This is probably why, as opposed to HCTZ, CTD was recommended for use in the recent landmark SPRINT trial.

All the landmark trials demonstrating the benefits of diuretics have NOT used hydrochlorothiazide as an intervention drug. In the MRFIT study, the use of HCTZ or CTD was initially left up to the investigators' discretion. However, after a few years, the safety committee noticed that participants with CTD in their regimen were doing much better. It was subsequently mandated that those on HCTZ should be switched to CTD for the remainder of the study.

So how did HCTZ come to dominate the antihypertensive drug world? Perhaps, because of the successful use of HCTZ in the landmark VA Cooperative studies? To achieve this success, doses of HCTZ were 50mg twice a day!!!! The marketing based on these famous VA Cooperative trials was aggressive and it was also a stroke of genius to include HCTZ in single pill combinations (SPCs) with ACE-I and ARBs. This is HCTZ's saving grace. It is unfortunate that in an era where more use of single pill combination formulations are being encouraged, CTD can only be found in combination in two medications. Chlorthalidone-Azilsartan (EdarbyclorTM) is considered the most effective modern antihypertensive medication and is the prototype of future SPCs.

In the meantime, in order to get good 24-hr anti-hypertensive coverage, I tend to use amlodipine with either ACEI/ARB. However, don't forget that blacks are at high risk for developing heart failure. In such patients, I realize that we should not dwell too much on the single pill combination concept because these patients benefit from CTD (see ALLHAT study). In these cases ACEI/ARBs can only be prescribed as single agents with CTD.

So give CTD a try. Do follow the potassium levels initially because of the kaliuresis that can be more pronounced with CTD. Otherwise, it is a safe and effective method to prevent CV events in our patients.

Clinician Highlight:

We are pleased to report that Dr. Landerer, one of the participating clinicians at ODA Health Center, has achieved a 70% BP control rate for his cohort of patients and the median time for follow-up of his patients who remain uncontrolled is 23 days (7 days less than the 30-day goal), placing him in the upper 94th percentile among clinicians for the Jan-Sep 2016 timeline. Dr. Landerer attributes his success to engaging patients about the importance of returning more

frequently for follow up BP checks. “I was just doing my job. Emphasizing to patients that it was important for them to return for follow ups. I also diligently took their BP and verified that they were taking the appropriate medications,” he commented. Congratulations Dr. Landerer, we look forward to continuing to work with you and the team at ODA to maintain the gains you have made thus far in regards to BP control!

If you have specific questions related to hypertension management in your patients, Dr. Williams can be reached by email at Stephen.Williams@nyumc.org or by phone at 646-320-8075 (cell).

THE BP VISIT PROJECT TEAM
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