

## Letter to the Editor

# Ideal Dry Weight in Dialysis Patients are we there Yet?

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One of the difficult tasks to achieve in hemodialysis patients is the ideal dry weight; hence many definitions had evolved during the past few decades.

As early as Hemodialysis began; dry weight was an objective to reach during the evolving therapy. In 1967 Thomson et al, define dry weight as reduction of BP to hypotensive levels during ultra filtration and not associated with other obvious causes [1]. During 1980<sup>th</sup> the definition have changed to a more aggressive approach states that dry weight is the weight obtained at the conclusion of a regular dialysis treatment below which the patient is more often will become symptomatic and might go into shock, such an aggressive approach have been abandoned with more rationale definitions in 1990<sup>th</sup> where again maintain normotensive without antihypertensive medications in between dialysis session marking the ideal dry weight in spite of possible salt and fluid retention [2].

In 2009, Sinha and Agarwal proposed a definition that combines subjective and objective measurements; "The lowest tolerated post dialysis weight achieved via a gradual change in post dialysis weight at which there are minimal signs or symptoms of hypo- or hypervolemia & the patient can remain normotensive until the next dialysis without antihypertensive medication" [3].

Still however some patients develop hypotension while not achieving dry weight and manifestations of intravascular volume depletion still can occur in patients with volume overload.

Ideal Dry weight then can be achieved when patients having: Shortest post-dialysis recovery time, Least intradialytic hypotension episodes, Longest patient survival, Fewest cardiovascular and cerebrovascular events and hospitalizations, Fewest hypovolemia-related access thrombosis, and fewest post-dialysis falls [3].

Predialysis hypertension is a major problem and escalation of antihypertensive medications is a usual approach by many nephrologists, however achieving the ideal dry weight and gradual increase in patient ultra filtration till a euovolemic status achieved play a major rule in controlling hypertension in hemodialysis patients.

On the other hand patients developing hypotension or postural drop in blood pressure post dialysis especially if symptomatic with dizziness, easy fatigability, somnolence is a strong indicator of the

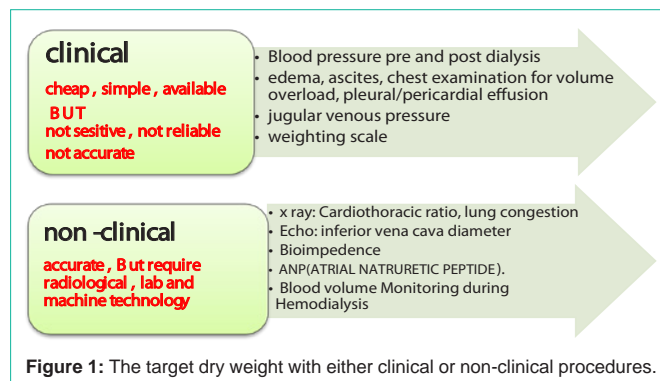


Figure 1: The target dry weight with either clinical or non-clinical procedures.

need to elevate dry weight to a higher target at which such symptoms and findings disappear.

Different approaches have been developed to assess the target dry weight with either clinical or non-clinical procedures as illustrated in (Figure 1).

Approach for achieving dry weight should implement a multidisciplinary team approach; including dietician, dialysis nurse and a nephrologist, all should work in proximity with the patient. Family support should be requested when necessary during patient educational sessions to achieve the target dry weight [4].

Control of interdialytic weight gain is of prime importance, salt restriction is the key for such approach, 1.2- 2gm per day of salt and fluid restriction to 1000 to 1200 ml of fluid per day will help dialysis patients in achieving their target dry weight plus controlling hypertension and avoidance of symptomatic hypotension and muscle cramps encountered during high ultra filtration rates in patients with high interdialytic weight gain. The target interdialytic weight gain should be less than 4% in the midweek sessions and up to 5% during the weekends [5].

Medical care during HD sessions aims to deliver a safe and effective treatment. It is much easier to ask this effort of the patient at the start of dialysis when he is looking for a rapid improvement. The treatment is monitored by the attending nurse in addition to a comprehensive clinical assessment aiming at prevention of the occurrence of treatment-related complications. The safe removal of excess fluid is primarily the responsibility of the dialysis team, assessment of the ideal dry weight enables the team to determine the amount of fluid required to be removed and avoids the occurrence of dialysis complications related to less or excess volume removal [6].

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