Adherence (Part 3) - Why do patients not adhere to therapies?

A high percentage of dialysis patients do not adhere to their phosphate binder medication, which leads to poor control of serum phosphorus levels. What factors contribute to this non-adherence?

ADHERENCE IS A MULTIFACTORIAL PROBLEM

Studies investigating the causes of non-adherence across multiple diseases have found it to be a multifactorial problem. Not only do adherence rates vary between patients, they also vary for the same individual over time and across treatments. In fact, most patients are non-adherent at some point in time. Some of the reasons found for non-adherence to therapies are:

Psychological factors

- Psychosocial factors include patients’ beliefs about their treatment, the amount of social support they receive and even certain personality traits.
- A systematic review of 34 studies on adherence to phosphate binders found that psychosocial factors were the most promising predictors of non-adherence. However, pill burden as a predictor of adherence was not assessed in this review.
Need for lifestyle modification

- One study found adherence to binders to be lowest in patients who had to change their lifestyle in order to adhere.\(^3\)

Cost-to-patient of medication

- In a review of 160 articles, across multiple diseases, on the relationship between treatment costs-to-patient and adherence, increases in patient cost sharing were associated with declines in medication adherence, which in turn were associated with worse health outcomes.\(^4\)

Demographic variables

- Demographic factors such as age, gender, education and ethnicity have all been suggested as factors that can influence adherence.
- However, in a systematic review of studies related to phosphate binders, only age was associated with adherence.\(^2\)

SOME FACTORS ARE PARTICULARLY RELEVANT TO PHOSPHATE BINDER TREATMENT

Two potential causes of non-adherence have particular relevance for patients prescribed phosphate binders.

High pill burden, combined with regimen complexity

- Dialysis patients have a high pill burden. One study estimated the average pill burden to be nineteen pills per day, of which phosphate binders contributed about half.\(^5\) Phosphate binder regimens are also relatively complex, involving multiple doses per day administered with meals.\(^6\)
- A recent study has shown that a lower pill burden was associated with greater adherence.\(^6\)

Medication preference and poor tolerability of binders

- One study found that non-adherence to phosphate binders was associated with medication preferences. Perhaps unsurprisingly, patients on a phosphate binder that they did not like showed lower adherence than patients who did like their treatment.\(^7\)
- This is a particularly significant factor in haemodialysis patients as many binders have relatively poor tolerability over...
Both tolerability and pill burden appear to be practical, modifiable targets for improving adherence in hyperphosphatemic patients. We will examine these issues in greater detail in our next articles.

See also the previous Adherence articles:
March 24th, 2014; Adherence Part 1 - The challenge of non-adherence in hyperphosphatemia
April 11th, 2014; Adherence Part 2 - Is adherence to phosphate binder therapy associated with improved outcomes?

REFERENCES


