

Vitamin B CoStrong and Thiamine in Alcohol Dependence Syndrome

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Background

The combination of oral vitamin B complex preparations and Thiamine co-prescription is commonplace in Alcohol Dependency. This combination has historically been used in the prevention of Wernicke's Encephalopathy (WE). WE is an acute neurological condition caused by thiamine deficiency and is classically associated with confusion, ophthalmoplegia and ataxia. WE is associated with Alcohol dependence as thiamine deficiency is common in this population.

In 2019 the Regional Medicines Optimisation Committee (RMOC) reviewed all available evidence for the safety and efficacy of these two preparations in preventing WE. They released a position statement, concluding that there was no evidence supporting the use of Vitamin B complex preparations, and that there were four specific scenarios when the use of Thiamine could prevent WE in patients with alcohol dependency:

- 1) decompensated liver disease;
- 2) acute withdrawal;
- 3) malnourishment or risk of malnourishment;
- 4) before and during a medically assisted withdrawal.

They also advised that Thiamine metabolism returns to normal after approximately 6 weeks abstinence. While they acknowledge that there are other times when prescription may be indicated, but conclude that in Alcohol Dependence Vitamin B Complex Preparations should not routinely be prescribed. Thiamine prescription is indicated in the four scenarios described above, and that this can reasonably be stopped following 6 weeks of abstinence.

Aim

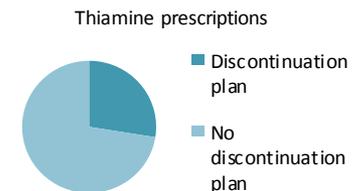
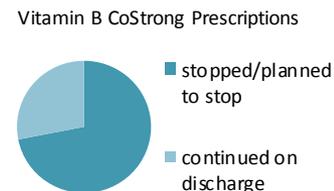
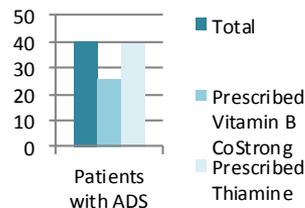
Compare the prescribing practices in Ward 15, Downshire Hospital (an inpatient addictions unit) against the RMOC Position Statement 2019 for oral vitamin B supplementation in alcoholism.

Methodology

Patients admitted between 01/08/2020 - 31/12/2020 with a confirmed diagnosis of Alcohol Dependence Syndrome were included. Other comorbid substance misuse diagnoses were not used as exclusion criteria. Discharge letters for each patient were examined to determine if Vitamin B CoStrong (the preferred vitamin B complex preparation in the trust) or Thiamine was prescribed prior to admission, and if this was continued, stopped, or had a discontinuation plan in place, in keeping with the RMOC guidelines.

Results

47 patients were admitted within the specified time period. 40 of these had a diagnosis of ADS. 26/40 (65%) of patients were prescribed Vitamin B CoStrong, 12/40 (30%) had Vitamin B CoStrong stopped or planned to stop in the community. 39/40 (98%) of patients were prescribed thiamine on discharge and 11/40 (28%) had a documented discontinuation plan.



Discussion/Conclusions

Prescribing practices in ward 15 are only meeting the advice given by RMOC's Position Statement in a minority of cases. It is noted that Vitamin B CoStrong and Thiamine can be prescribed for alternative indications, with alternative recommendations, for example in patients with malnutrition for another reason aside from Alcohol Dependency, or those with alcohol related brain disease. It is suspected that this is the case in some of the patients included in the audit - but this was not documented in discharge letters and therefore could not be included in the results.

These preparations are taken multiple times a day, most commonly three times daily and if both thiamine and Vitamin B CoStrong are prescribed at maximum doses this is a total of 9 tablets a day. By reducing this we can significantly improve overall tablet burden and polypharmacy. Furthermore, Vitamin B CoStrong costs approximately 7p per tablet, with a four weekly cost of £11.82, or £153.66 per year per patient. Thiamine costs 4p per tablet with a four weekly cost of £6.72, or £87.36 per year per patient. By appropriately stopping these medications there is also a financial benefit.

The RMOC standard was agreed and implemented by the multidisciplinary team in January 01/01/2021. A reaudit covering January- June 2021 is planned.