

# Alcohol Service Referrals and Thiamine Prescription

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## Introduction

- Thiamine deficiency related Wernicke's encephalopathy, and Korsakoff syndrome, can be easily prevented by prescribing Thiamine at referral time.
- Prescribing Thiamine 100mg TDS for one year, at ~20p/day, would still be financially beneficial to the National Health Service (NHS) as it would cost less than 15% of the total cost as an inpatient for one day; furthermore, it would lower the risk of Alcohol Related Brain Damage admissions.
- This Audit looks at Thiamine prescription for patients referred to Integrated Alcohol Service (IAS) from GPs between 01/01/2020 – 29/02/2020.

## Aims

- Determine the prevalence of GP referrals to IAS where Thiamine is prescribed at the time of referral.
- To identify patients at risk by assessing their Past Medical History (PMH).

## Background

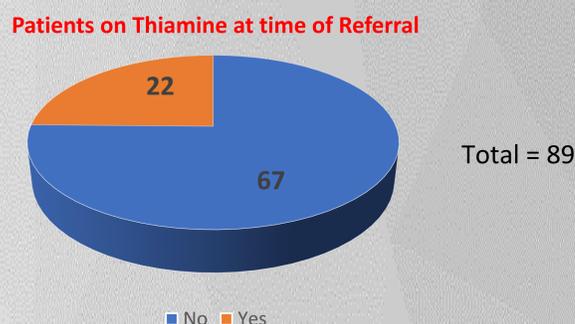
- Approximately £3.6 billion<sup>[1]</sup> is spent by the Scottish government yearly tackling challenges caused by alcohol misuse.
- Data from the National Records of Scotland: 5-year average of Alcohol-specific deaths throughout Scotland between 2015-2019 was 1092. For NHS Grampian, the 5-year average for this period was 82, including 38 patients from Aberdeen City and 27 from Aberdeenshire<sup>[2]</sup>.
- Alcohol decreases the efficiency of Thiamine absorption from the gastrointestinal tract<sup>[3]</sup>. The active form of Thiamine is formed in the liver; therefore, conditions such as liver cirrhosis, which is widespread in patients with alcohol dependence, further reduces the bioavailability of active Thiamine<sup>[4]</sup>.

## Methods

- List of patients' names referred between 01/01/2020 - 29/02/2020 was generated and the hospital's digital notes system was used to look at patients' notes including referral letters and Primary Care Summary.

## Results

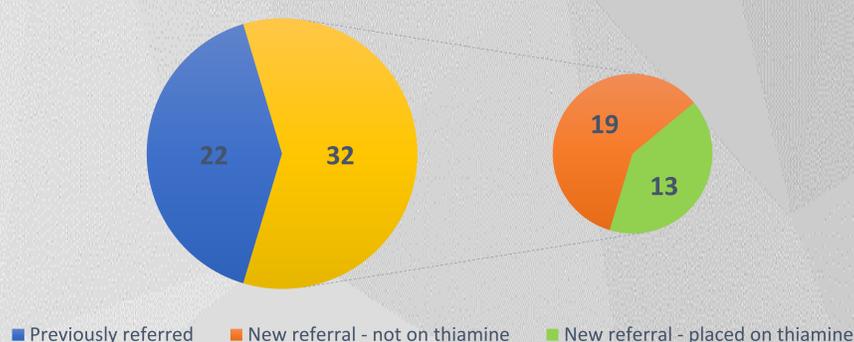
- A total of 89 patients were referred to the IAS from GPs between 01/01/2020 - 29/02/2020; only 22 were prescribed Thiamine before or at the time of being referred to IAS (figure 2).



**Figure 1:** Pie chart showing the number of patients on Thiamine at the time of referral who were referred to the IAS from GPs between 01/01/2020 and 29/02/2020.

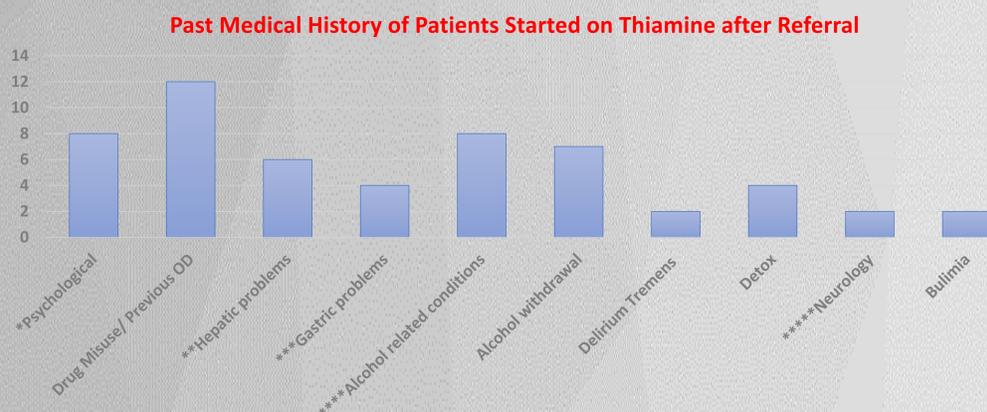
- Of the 67 patients who were not on Thiamine, 12 patients were discharged because they did not attend their appointments and 1 self-discharged as they felt they no longer needed the service.
- The remaining 54 patients who were not on Thiamine were split into two cohorts: (i) Newly referred patients (ii) Previously referred patients
- Figure 3 illustrates the newly referred patients who were then subsequently placed on Thiamine

**Newly Referred Patients Placed on Thiamine**



**Figure 2:** Pie chart showing the number of newly referred and previously referred patients. The sub pie chart illustrates the number of newly referred patients that were prescribed Thiamine after their referral.

- Figure 4 illustrates the data of pre-existing medical conditions for patients started on Thiamine after their assessment.



**Figure 3:** Column graph showing the number of patients with certain medical conditions who were started on Thiamine after their referral.

OD = overdose

\* Anxiety; Depression

\*\* Cirrhosis; Hepatitis; Fatty Liver Disease; Hepatomegaly

\*\*\* Gastritis; Irritable Bowel Syndrome; Coeliac Disease; Dyspepsia; Ulcer

\*\*\*\* Alcohol related - Gastritis; Pancreatitis; Seizures; Intoxication; Psychosis; Dementia

\*\*\*\*\* Seizures; Epilepsy

## Conclusion

- 75% of patients were not on Thiamine at the time of GP referral but most patients were placed on Thiamine after engagement with IAS.
- 19 patients were not prescribed Thiamine after their IAS assessment; therefore, the recommendation from this Audit is to ensure all patients are prescribed Thiamine after assessment, if not already on Thiamine.
- Some patients with known alcohol-related complications and hepatic complications were not prescribed Thiamine at the time of their referral.
- GPs need to be encouraged to prescribe Thiamine for patients at the time of referral to IAS.