

“Extrapolation of results over the last financial year estimated that 6305 thiamine vials were used superfluous to recommendations”

Thiamine: B1 or 2 (much)

Parenteral thiamine: real world prescribing vs statewide guidelines

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Introduction

Thiamine, also known as vitamin B1, is essential for a variety of functions to enable the human body to function properly. One of the specific conditions that impair thiamine levels is alcoholism, due to both intestinal malabsorption and/or poor dietary intake of thiamine, which can result in Wernicke-Korsakoff syndrome. Parenteral thiamine is used in these circumstances, where rapid restoration of thiamine is required. This audit was conducted to understand current clinical practice across the hospital network compared to state-wide guideline recommendations.

Aims

To evaluate the appropriateness of parenteral thiamine dosing and duration of therapy in comparison to statewide guidelines, assessing for opportunity to improve both clinical use and cost effectiveness.

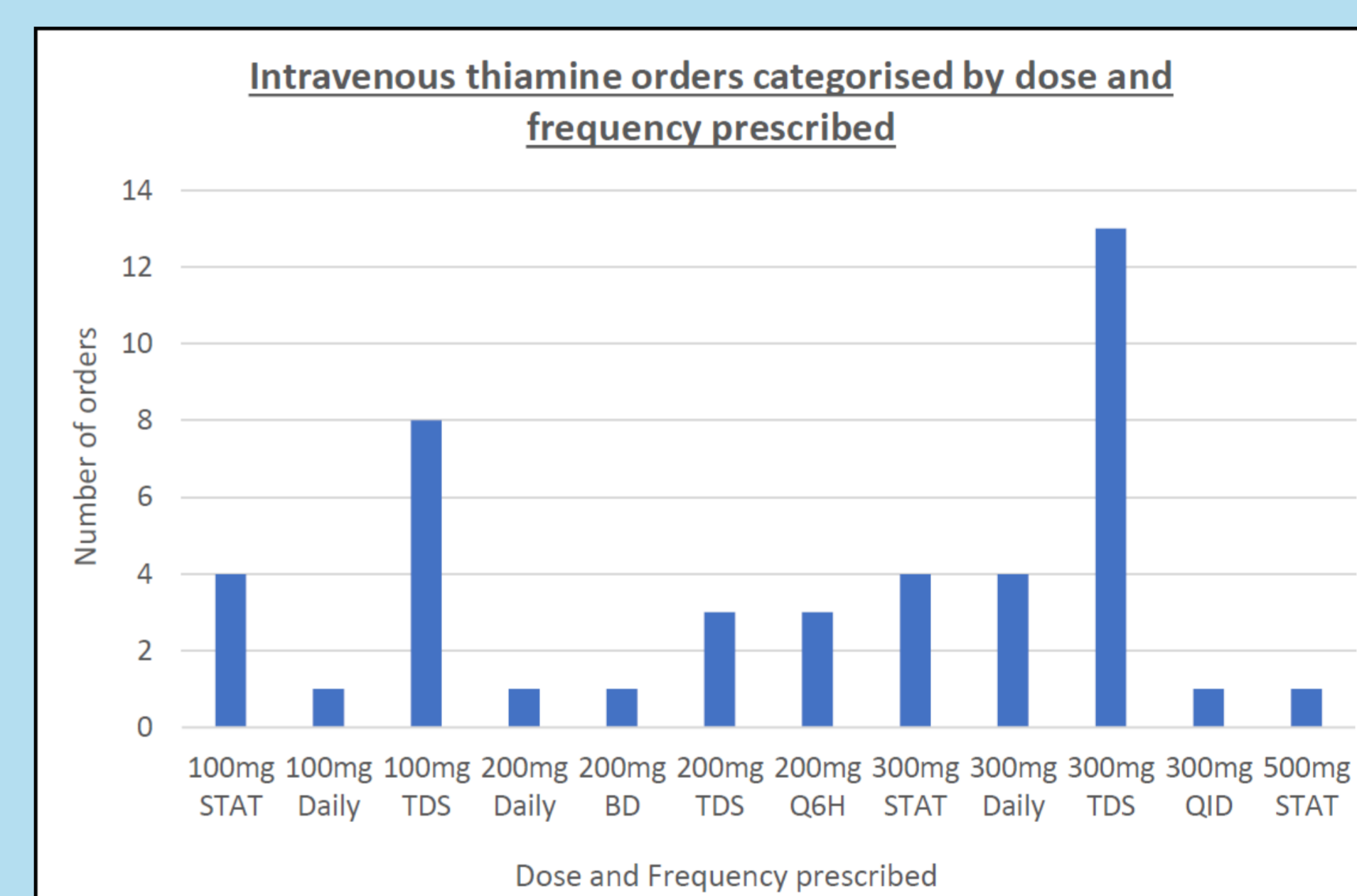
Method

A retrospective chart review of adult inpatients meeting study inclusion criteria was conducted and analysed according to approved research governance methodology. Patient demographics, parenteral thiamine regimes and dosing, route and indication for therapy were collected from the patient's medication chart and clinical record. Prescribing patterns were subsequently compared against statewide guidelines.

Results

Analysis of medication charts and patient clinical records showed that 94% of parenteral thiamine orders were written for the intravenous route. A wide distribution of dose and frequencies were prescribed for administration, with 300mg IV TDS the most common regime prescribed. Overall compliance with statewide recommendations was low, with 26% receiving less parenteral thiamine while 56% received excess doses. Extrapolation of results to drug use across the network over the last financial year estimated that 6305 vials were used superfluous to recommendations.

Figure 1 (right): Considerable variation in thiamine prescribing was noted in the study. Regimens varied by dose and frequency.



Discussion

The audit findings suggest that improvements can be made to optimise the clinical management of patients presenting to an acute hospital with alcohol withdrawal regarding parenteral thiamine prescribing practices.

Additionally, compliance with statewide guideline recommendations will result in meaningful cost savings for the hospital network.

Conclusion

- Parenteral thiamine is an essential treatment in the hospital setting for alcohol withdrawal
- In practice, we found parenteral thiamine is often overprescribed
- Meaningful financial savings can be realised by following approved guidelines

For more information

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Guidelines for use of SA Pharmacy Research Poster Template

This template is intended as a guide only. You will need to adapt the various sections as they apply or do not apply to the work you are presenting.

This is an A0 (841 mm x 1189 mm) size template, as A0 is the most common size required for Australian scientific conferences.

It can be helpful to have a peer from your target audience who is not familiar with your project to provide feedback on your poster prior to printing. Ask for feedback on the clarity of the content, the presentation format and any questions the poster raises.

Converting your file to a PDF prior to forwarding to the printer should prevent any unexpected formatting changes.

- To convert to PDF go to File > Save As > select PDF from the 'Save as type' dropdown menu below the file name > Save.

Blue Header Section

- This section should be used to display your key take home message (do not use all upper case letters)
- The idea is that it is large and simple enough so that conference attendees walking past can look at your poster and come away with the key learning you wish to promote in a very short period of time, without having to read through the additional detail you provide below
- Aim to answer what is the most important/interesting/astounding finding from my research project?

Title, authors and institutions

- The title should be concise and informative
- Authors should be presented in order of contribution to the work, with the senior author being listed last
- The presenting author is usually underlined
- Author names can be included in full or presented as initials and surname

Colour	Red	Green	Blue
Blue	75	172	233
Dark blue	62	146	203
Light blue	199	227	242
Dark grey	110	111	113
Light grey	224	224	224

RGB colour codes for SA Pharmacy poster template

Content

- You do not need to include every aspect of your project
- For most posters you will not require a high level of detail
- Plan out what you would like readers to take away from your poster
- Consider alternatives to text to present your content visually using charts, graphs, images (high resolution only) etc.
 - Remember to include appropriate captions and/or axis labels and keys for any figures included
 - You do not need to repeat results displayed visually in the text
 - Keep the colour scheme simple and consistent, prioritise use of SA Pharmacy colours as per template
 - To match the template colours for text or shading go to the relevant colour selection dropdown, click 'More colours' or 'More fill colours' then move to the 'Custom' tab, use the table above to enter the values for Red, Green and Blue (RGB model)
- Leave blank 'breathing space' around your text/other content
- Your poster should answer the following questions:
 - Why did you undertake this project (introduction/background), what gap does the project address? (rationale/aims)
 - What did you do? (methods) What did you find? (results) What do you recommend? (conclusions)

Text

- Use short dot points to make your content quick and easy for the reader to digest, avoid large blocks of text.
- Text should be clear and to the point, suggested total word count should fall between 300 – 500 words
- Left justify text, using fully justified text is more difficult to read
- Methods may be better presented with a flow chart or similar, instead of text

Acknowledgements

- You may wish to acknowledge funding sources and participants or others (e.g. students, colleagues) who have contributed to data collection or other aspects of your project whom do not meet the criteria for authorship

References

- References may or may not be required, for many conferences they are not essential

Black Footer Bar

- Please include your work contact details so that readers can contact you if they would like to discuss further. Usually your name and an email address is sufficient.
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- Do not link to personal social media accounts
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