

# Lithium Monitoring Service Development Project and Audit

*Ciara O'Connor<sup>1</sup>, Margaret Gallagher<sup>1</sup>, Elizabeth Owens<sup>1</sup>*

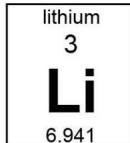
<sup>1</sup> Clondalkin Mental Health Service, Tallaght University Hospital, Dublin

## Background

- Lithium has a narrow therapeutic index and lithium levels need to be regularly checked for this reason.
- Lithium can also lead to renal failure, thyroid dysfunction and hypercalcemia.
- NICE guidelines recommend those prescribed Lithium have blood tests at the following intervals; three monthly monitoring of lithium levels, six-monthly renal and thyroid function, twelve monthly calcium levels.
- The authors noted the lack of formal structure within the CMHT to ensure this was occurring and sought to introduce a multi-pronged approach to improve compliance.

## Objectives

- To improve compliance with Lithium blood test monitoring in a psychiatric outpatient clinic.



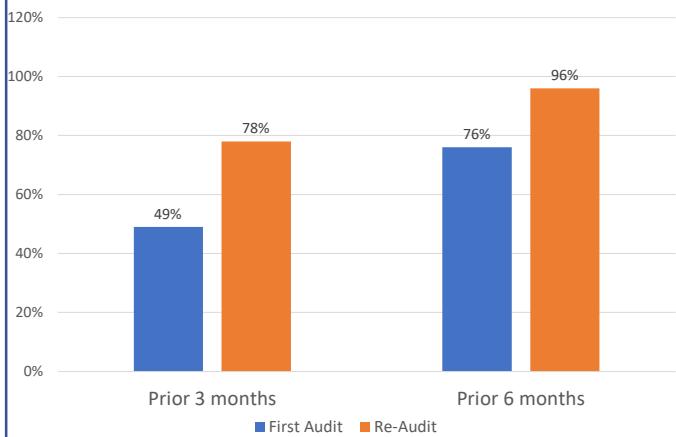
## Methods

- A survey of all outpatient files was conducted between December 2020 and January 2021 to identify which patients were on Lithium.
- A comprehensive, secure patient database was created for those prescribed lithium, with relevant patient details on it including diagnosis, other prescribed medications, GP, Consultant, and team key worker.
- An initial survey was also completed of compliance with blood monitoring.
- Interventions included:
  - The creation of the database.
  - Local education to the MDT about the results of the audit.
  - Incorporation of the guidelines for correct monitoring for the local NCHD induction.
  - Discussion with senior nursing management about the provision of increased resources (a part time lithium nurse) to improve compliance.
- All patients noted to have historic poor compliance were discussed with the relevant consultant and consideration given to an alternative agent in two cases.
- All interventions except the provision of additional resources were implemented prior to re-audit.
- All relevant patient files were re-audited in June- July 2021.

## Results

- 45 patients out of a caseload of approximately 600 active patients were found to be prescribed lithium in December 2020/January 2021.
- 49% (22/45) had blood tests completed in the prior 3 months.
- 78% (35/45) had blood tests completed in the prior 6 months.
- On re-audit in June/July 2021:
- 76% (34/45) had blood tests completed in the prior 3 months.
- 96% (43/45) had blood tests completed in the prior 6 months.

**Lithium Monitoring Blood Tests**



## Conclusions

- Early data suggests these interventions may have improved compliance with international guidelines for lithium monitoring.
- Further audit will be required to assess the longevity of their impact.

## Acknowledgements

Clinical Audit Consent: Dr Yolande Ferguson, Clinical Director.

## References

National Institute for Health and Care Excellence (NICE) (2014) Bipolar Disorder: Assessment and Management. CG185



Tallaght  
University  
Hospital

Ospidéal  
Ollscoile  
Thamhlachta

An Academic Partner of Trinity College Dublin



College of  
Psychiatrists  
of Ireland