

## Poster Abstracts

### PO-73

#### A CASE REPORT ON CHRONIC LITHIUM TOXICITY IN A LOW RESOURCE SETTING

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**OBJECTIVES:** To identify how the lack of facilities in a low resource setting leads to chronic Lithium toxicity

(Background: Lithium is used for long term management of psychiatric illnesses. Lithium has dose related toxicity. Acute toxicity is not severe due to saturable absorption process. Chronic toxicity may occur with regular therapeutic doses on the grounds of renal failure. To avoid toxicity, Lithium levels and renal functions should be monitored regularly. There is no antidote for Lithium and repeated haemodialysis is life saving.)

**METHOD (Case report):** 54 year old lady with bipolar affective disorder, maintaining well on Lithium carbonate, admitted with tremors for four weeks and slurring of speech and unstable gait for one week. She has been requested to do Serum creatinine and Hb% on a previous clinic visit, with suspicion of chronic renal failure (CRF). Investigation results indicated CRF, but she had kept the reports for next clinic visit and kept on taking the usual Lithium dosage. Lithium toxicity was apparent with CRF on this clinic visit, where she was admitted soon and requested to do Lithium level.

On admission she had cardiac and CNS toxicity. Lithium level was very high (3.8mmol/L). She was intubated due to impending cardio-respiratory arrest. Since haemodialysis was not available, she was transferred to General hospital Monaragala, where she was haemo-dialysed five times and transferred back to us. She didn't recover well, subsequently developed sepsis and died with multi organ failure.

**CONCLUSIONS:** Lithium levels should be monitored three monthly in all patients taking Lithium regularly. There are no facilities to do it in our hospital. Only few private labs in capital perform it. Being in a remote area, costly Lithium levels are not routinely ordered. This delays the early diagnosis of toxicity. High work load at clinics limit the individual attention, leading to delay in clinical diagnosis as well. Work load limits carrying out of patient awareness programmes as well. This patient didn't aware any toxicity symptoms and hasn't mention about tremors at previous clinic. She has kept on taking Lithium despite having CRF. Unavailability of arterial blood gas analysis and haemodialysis was crucial. Patient has to be transferred in golden first hours. Due to high demand on haemodialysis at Monaragala with high CRF incidences, she was transferred back following slight improvement. Rebound high level after haemodialysis was possible due to redistribution, making repeated haemodialysis important. All these issues combined with low resource setting have lead to the fatal outcome of this patient.