Improving the safety of patients with depression and bipolar disorder

Oxleas NHS Foundation Trust improved the monitoring of lithium treatment among patients with depression and bipolar disorder according to standards derived from NICE guidance. Lithium monitoring has long been a problem area for the NHS with some patients harmed because they have not had their dosage adjusted when necessary.

“The dangers of poor lithium monitoring

Oxleas NHS Foundation Trust provides mental health services to Bexley, Bromley and Greenwich. The Trust identified lithium monitoring as an area where practice needed to improve after taking part in the Prescribing Observatory for Mental Health (POMH) programme. The Oxleas POMH team comprised representatives from clinical audit, pharmacy, medicine, nursing, and service users. The service user representatives both had personal experience of poorly managed lithium treatment. One had been treated for lithium toxicity in intensive care as a consequence of not having his treatment regularly monitored, and the other service user said he always had to remind his doctors to take bloods for lithium monitoring and that there didn’t seem to be a system in place to flag up when his tests were due. The results of the baseline POMH programme audit backed this up, highlighting that some patients did not have a blood test for lithium levels in the last year. Oxleas NHS Foundation Trust acted to improve patient care by ensuring monitoring of lithium treatment was in line with the NICE guideline on bipolar disorder which recommends that lithium levels are monitored every three months and assessment of thyroid and renal function every six months.

Developing a lithium database to share test results

A common problem of sharing information between pathology, primary and secondary care was identified by the Trust. Found also at a national level, the National Patient Safety Agency (NPSA) issued an alert around lithium monitoring. This included a statement that there should be an electronic interface between pathology and primary and secondary care to allow the results of lithium monitoring blood tests to be shared easily. The medical director supported a proposal to the Trust board that Oxleas fund the development and on-going management of a lithium database. The lithium database, designed by a psychiatrist, enables doctors and care coordinators to register their patients on the lithium database via email. The manager of the database liaises with the local pathology services once a month to obtain lithium results, and certain renal and thyroid function test results for all patients prescribed lithium. This information is uploaded into the database which then identifies all those patients who are due for a lithium blood test. Emails are sent out to the doctor and/or care coordinator for each patient to remind them when a blood test is due. Doctors started to populate the lithium database in April 2011 and the database was fully operational by September 2011.

Identifying patients on lithium has improved safety

The Trust has identified all patients taking lithium and recorded their details in a central location. A baseline audit identified 251 patients currently treated with lithium. Once the database was fully populated using data from pathology, this number rose to 480.

Improvements to patient care:

• In the most recent audit, conducted in July 2013, the number of patients who had had 4 lithium serum level tests in the last year rose from 35% at baseline to 52%.
• The number of patients who had had at least 2 lithium tests in the past year increased from 78% at baseline to 95%, with the all patients in the sample having had at least one test in the past year.

It is known that personalised reminders have a greater impact on practice than general educational initiatives, and the Trust believes that this may be a factor in the success of the initiative.

“In order to actively monitor treatment you need to know who to monitor and be reminded of it when the time is right”

Sarah Elliott, Specialist Clinical Pharmacist, Oxleas NHS Foundation Trust