Alert

Patient Safety Alert

NPSA/2009/PSA005
1 December 2009

NHS
National Patient Safety Agency

National Reporting and Learning Service

Safer lithium therapy

Issue

Some patients taking lithium have been harmed because they have not had their dosage adjusted based on recommended regular blood tests. If patients are not informed of the known side effects or symptoms of toxicity, they cannot manage their lithium therapy safely.

Regular blood tests are important. Clinically significant alterations in lithium blood levels occur with commonly prescribed and over-the-counter medicines. The blood level of lithium is dependent on kidney function and lithium has the potential to interfere with kidney (renal) and thyroid functions.

Patient safety incidents

The National Patient Safety Agency (NPSA) received 567 incident reports (October 2003 to December 2008) relating to lithium use. Two reports were of severe harm, 34 moderate and 531 low or no harm. The most common error was 'wrong or unclear dose or strength' (124 incidents).

The NHS Litigation Authority dealt with two fatal and 12 severe harm incidents[1] involving lithium therapy and the Medical Defence Union has been involved with 15 incidents directly related to lithium toxicity and monitoring.

An audit[2] found that only 42 per cent of patients on initiation of lithium therapy were documented to have been informed of risk factors for toxicity. For patients maintained on lithium therapy in the previous year, the audit found:

- one in 10 patients had no documented lithium blood level. (National Institute for Health and Clinical Excellence (NICE) standard: one blood level measurement every three months. Not met for 70 per cent of patients);
- one in five patients had no renal function tests documented (NICE standard: assessment every six months. Not met for 46 per cent of patients);
- one in six patients had no thyroid function tests documented (NICE standard: assessment every six months. Not met for 51 per cent of patients).

Supporting information

Further information and support materials to implement this guidance are available from: **www.nrls.npsa.nhs.uk/alerts**

Further information

Email: medicationteamenquiries@npsa.nhs.uk
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Action by all organisations in the NHS and independent sector

Action for all organisations in the NHS and independent sector where lithium therapy is initiated, prescribed, dispensed and monitored.

An executive director, nominated by the chief executive, working with relevant medical, nursing and pharmacy staff and the lead biochemist providing services to the trust, should ensure that **by 31 December 2010:**

1. patients prescribed lithium are monitored in accordance with NICE guidance;
2. there are reliable systems to ensure blood test results are communicated between laboratories and prescribers;
3. at the start of lithium therapy and throughout their treatment patients receive appropriate ongoing verbal and written information and a record book to track lithium blood levels and relevant clinical tests*;
4. prescribers and pharmacists check that blood tests are monitored regularly and that it is safe to issue a repeat prescription and/or dispense the prescribed lithium;
5. systems are in place to identify and deal with medicines that might adversely interact with lithium therapy.

* The NPSA has developed a patient information booklet, lithium alert card and record book for tracking blood tests.

1. Between 1995 and 2004.
2. Prescribing Observatory for Mental Health. Topic 7 baseline report. Monitoring of patient prescribed lithium: baseline. Prescribing Observatory for Mental Health, CRTUO69 (data on file), 2009.

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NPSA Reference Number: NPSA/2009/PSA005 Gateway Reference: 13099 0921 December 2009