

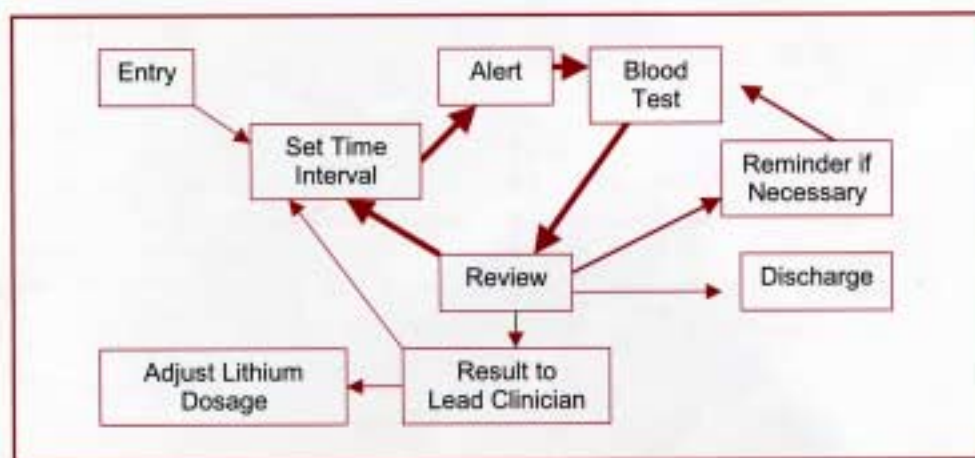
Leicestershire **Lithium Register**

Introduction to Lithium Register

What is the Lithium Register?

- It is a system to ensure the timely measurement of blood Lithium levels in patients taking the drug and the secure transmission of results to relevant health care professionals.
- Two part-time clerical staff run the Register from an office within the pathology department at Glenfield Hospital using specially written software. The functions of the Register are shown in Figure 1.

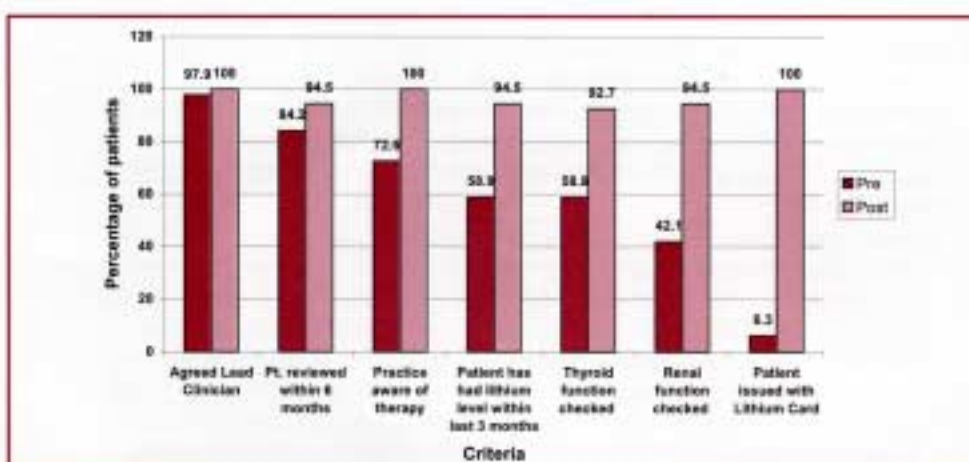
Figure 1



Why was the Lithium Register started?

- Leicestershire Primary Care Audit Group (PCAG) carried out a pilot study in 17 practices in Leicestershire in 1998. This showed that the care of patients on lithium was sub-optimal in all practices (graph 1). Following an open meeting in September 1998 it was decided to study the effects of a Central Lithium Register in a pilot study.
 - When the pilot study data was analysed it was clear that there had been a great improvement in care as measured by national guidelines.
 - In 2000 it was agreed to roll the Register out to cover all of Leicestershire.
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Graph 1 - Result Pre and Post the Lithium Register



How is the Register performing now?

- Recent data (table 1 and graph 2) shows that the need for the Register is as urgent now as it was in 1998. In clear contrast to this Register data shows that nearly all patients on the Register are meeting the national guidelines for care.
- The Register is currently (May 2002) helping to look after 517 patients on Lithium across Leicestershire.

Graph 2 - Number of Lithium levels

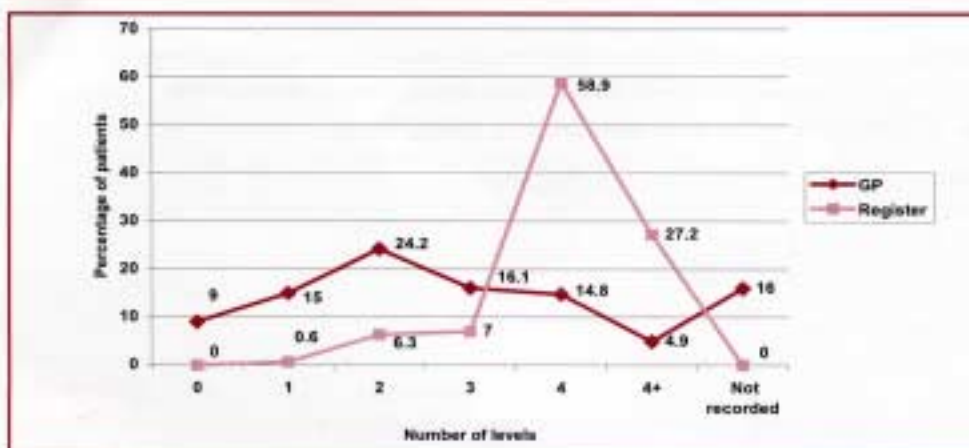


Table 1

Criteria	Percentage recorded in GP records during 2000/2001	Percentage recorded on the Lithium Register for 12 months or more
3 or more Lithium levels in last 12 months	35.80%	93.00%
Thyroid function checked	60.20%	98.70%
Renal function checked	42.10%	93.00%
Patient issued with Lithium Card	6.30%	100.00%

How does the Register respond to the National Service Framework for Mental Health?

- The Lithium Register should help practices achieve Standard 4, because it provides a clear protocol for the monitoring of Lithium therapy.

Who can be referred to the Lithium Register?

- Not all patients on Lithium medication are suitable for the Register.
- Patients should be stable on a specified dose of Lithium.
- They should not have other serious medical conditions.
- They must be able to reliably respond to a postal request for a blood test.
- Patients must agree to be on the Register – it is a voluntary scheme.

Who runs the Register

- The following run the Register on a day to day basis:
Mrs. Jacqui Piper, Register Co-ordinator.
Mrs. Kathryn Marsden, Register Co-ordinator.

Jacqui and Kathryn use software that was developed and is maintained by Dr. J. Falconer Smith.

Leicestershire
**Lithium
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- There is a multidisciplinary steering group that gives advice on strategy and appropriate development of the Register. They are:

Dr. A. Farooqi, General Practitioner and Chairman of Group
Dr. C. Meakin, Consultant Psychiatrist
Dr. M. Lakhani, General Practitioner
Ms. E. Gohil, Pharmacist
Ms. R. Sorrie, Clinical Governance Manager
Mrs. P. Gibbs, Clinical Audit Co-ordinator, Mental Health
Ms. M. Darby, Service Strategy Manager
Mr. S. Oakley, Strategy and Development Manager
Mrs. L. Holmes, Audit Facilitator, PCAG
Mr. S. Ashmore, Manager PCAG and Secretary to Group
Mrs. J. Piper, Register Co-ordinator
Mrs. K. Marsden, Register Co-ordinator
Dr. J. Falconer Smith, Consultant Chemical Pathologist and Register Director

Feedback from Clinicians and Users

- Comments on the pilot study were sought from patients, general practitioners and consultants.
- In general the vast majority of comments were positive.
- "I sleep easier in my bed, because of the Lithium Register" (general practitioner)
- "I am pleased my Lithium treatment is being closely monitored" (patient)
- "This is a very worthwhile scheme" (consultant psychiatrist)

Publication

- Members of the steering group produced a paper entitled 'The impact and acceptability of a Central Register on the Standard of Monitoring on Lithium Therapy – Professional and Patient Perspectives'. This paper has been approved and will be published in a forthcoming edition of the Journal of Clinical Governance.

HIMP Funding

- Members of the multidisciplinary steering group would like to thank Kate Phipps for her hard work in securing funding for the Lithium Register over the course of the last three years.
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Advice on changing dosage for GP's

- Lithium blood levels should be measured at least twelve hours post dose. If patients normally take their medication first thing in the morning this should be delayed until after their blood test which should be as early in the day as practicable. Lithium levels measured close to a recent oral dose of Lithium are unreliable and should not be used to adjust dosage.
- Patients with normal renal function show an approximately linear relationship between trough blood levels and Lithium dosage. Thus a 25% increase in trough level can normally be achieved by a 25% increase in daily Lithium dosage. Similarly a 40% reduction in Lithium levels can normally be achieved by a 40% reduction in daily Lithium dosage. Patients with toxic values of lithium (i.e. levels over 1.5mmol/L, but may be lower in elderly patients) should stop Lithium completely for several days before restarting at lower dosage.
- The Lithium Register is only suitable for monitoring patients without other major medical problems (especially renal impairment) and who are compliant with their medication.

New enhancements planned

- "Copy to" will ensure all clinicians get U&E and TFT's as well as Lithium results in all cases. This is in response to feedback from GP's.
- Patients will receive all results (both within the therapeutic range and without) but values outside the therapeutic range will be withheld until the lead clinician has reviewed the situation and instructed the Register on the new Lithium dosage (if changed) and testing interval.
- Further enhancements will simplify the extraction of audit data from the Register.
- Other changes will be made in response to feedback from patients and healthcare professionals. Please write to the Lithium Register at the address given below.

How to contact the Lithium Register

The Lithium Register
Department of Pathology
Glenfield Hospital
Groby Road
Leicester. LE3 9QP

Telephone (voice, answerphone and fax) 0116 256 3470

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