Health and Social Care in Northern Ireland

Lithium Care Pathway

Use addressograph or write in CAPITAL LETTERS

Surname: ……

First names: ……

H&C number: ……

DOB: …….. Check Identity

Health and Social Care in Northern Ireland

Dear Doctor _____ Date _____

Your patient has been initiated on lithium, pathway 1. Monitoring will be as per Shared Care Guidelines until further notice by lithium team / Community Mental Health Service. Please see details of initial lithium workup:

Indication for treatment	
Target Lithium level	
Lithium Brand	

LITHIUM WORK-UP INFORMATION		
Consultant:		**Write in CAPITAL LETTERS or use addressograph** **Surname: ……..** **First name: ……** **Hosp No. / H&C: ……..** **DOB: ……..**
G.P – Name, Phone Number	***Cypher No.***	
C.P.N / Keyworker – Name & Contact No.		
Person to contact in Emergency: Name, number & relationship		**Patient Telephone No.**

INFORMATION GIVEN TO PATIENTS OR CARERS			
Date	**Information**	**Provided by**	**Patients / Carers**
	NPSA Lithium Pack		
	Patient understands information		
	Video (optional)		
	Emergency contact –name and contact number of Dr. & Clinic Nurse.		

LITHIUM WORK UP – INITIAL CONSULTATION				
Date	**Investigation**	**Results**	**Comments**	**Signature**
	Weight			
	Height			
	BMI			
	T_4			
	TSH			
	Urea			
	Creatinine			
	eGFR			
	Corrected Calcium			
	FBP			
	ECG *(if indicated)*			
	Other – specify Child bearing potential			
If any of the 'work up' tests shown are not within the normal range – Medical staff MUST be informed and action documented by Medical Staff and /or Nurse				

Lithium Monitoring Requirements		
Initiation phase	See lithium initiation chart on page 3	
When lithium level stable	3 monthly	Lithium levels
	6 monthly	Measure the person's weight or BMI (at least annually). Arrange tests for urea and electrolytes including calcium, eGFR and thyroid function every 6 months, and more often if there is evidence of impaired renal or thyroid function, raised calcium levels or an increase in mood symptoms that might be related to impaired thyroid function.
If Lithium dose changed	Monitor lithium weekly until stable	
NB: Copy all lithium monitoring results to the GP/lithium clinics/Community Mental Health Service, following achievement of therapeutic lithium levels. Results also available on Electronic Care Record		

LITHIUM INITIATION CHART (Lithium Team to complete)

The Lithium Therapy Communication Proforma MUST be completed and sent to GP

Date Commenced	Lithium Prescribed (by Brand)	Dose

Review Current medication for potential interaction - refer to Shared Care Guidelines

Lithium Initiation Monitoring – to be completed after Initial Consultation

Ongoing Lithium Monitoring Communication Proforma MUST be completed and sent to GP

Week	Current Dose	Lithium result	Date	Side effects & Mood Check	Management	Amended Dose	Results entered in Patient Lithium book Y / N	Date/Time Signature
1		N/A			Dose altered by prescriber: Y / N Prescriber name: Monitoring frequency:	N/A	N/A	
2					Dose altered by prescriber: Y / N Prescriber name: Monitoring frequency:			
3					Dose altered by prescriber: Y / N Prescriber name: Monitoring frequency:			
4					Dose altered by prescriber: Y / N Prescriber name: Monitoring frequency:			
5					Dose altered by prescriber: Y / N Prescriber name: Monitoring frequency:			
6					Dose altered by prescriber: Y / N Prescriber name: Monitoring frequency:			

When therapeutic level achieved inform GP of stabilized dose and to monitor as per shared care guidelines – see appendix 3

On-going Lithium Monitoring Record

Lithium target range: | **Ongoing Lithium Monitoring Communication Proforma MUST be completed and sent to GP**

Date & A=Attend D=DNA C=CNA	Test results							Entered in Lithium Book	Comments	Signature	Print name
	Every 3 months	Every 6 Months					As directed				
	SL 0.4-1 mmol/l	*FreeT4* 7.6-19.7 pmol/l	TSH 0.45-4.5 mU/l	eGFR	Corrected Calcium 2.20 - 2.60 mmol/L	Weight	*Other- Specify*				

If patient Did Not Attend (DNA) / Can Not Attend (CNA) or results 'out of range' – staff member to follow local guidelines and document in patient notes

Side Effect Monitoring Record *Ongoing Lithium Monitoring Communication Proforma where appropriate MUST be completed and sent to GP* **Monitor side effects at each visit. insert a ✓ where relevant and where appropriate, consult medical staff, complete comments section and send 'On-going lithium monitoring communication proforma' to GP.**											
Date	Weight gain	Nausea	Loose bowels	Fine tremor	Oedema	Polyuria	Polydipsia	Metallic taste	Other	Comments	Signed

Always check for Signs of Toxicity	These include: blurred vision, muscle weakness, drowsiness, coarse tremor, slurred speech, ataxia, confusion, convulsions, nausea, vomiting and ECG changes.

Appendix 1 – Lithium Care Flow Chart

LITHIUM CARE FLOWCHART

Lithium Initiation Preferably in Secondary Care.
Psycho-education included
Lithium Work-up information (page 2) forwarded to GP

Patients added to Lithium Register in both Secondary Care and Primary Care
Lithium Blood Results Copied to Primary Care

Pathway 1
Patient remains in Secondary Care for review and monitoring.
Lithium blood monitoring results copied to Primary Care.*

Pathway 2
Patient remains in Secondary Care for review but, with agreement between GP and Secondary Care, monitoring passes to Primary Care. Lithium blood monitoring results copied to Secondary Care.*

Pathway 3
If patient stable or strong patient preference, with agreement between GP and Secondary Care, review and monitoring passes to Primary Care. Lithium blood monitoring results not copied to Secondary Care.*

*****A communication proforma from secondary care to primary care will advise of the pathway the patient will follow and responsibilities for review and monitoring. Primary and secondary care Lithium registers should be updated using this information.

Health and Social Care in Northern Ireland

Appendix 2 – GP Initiation letter

Lithium Clinic Address

Date:

Dear Dr _____

Your patient _____ H&C number _____ has been initiated on lithium and at present is on pathway 1. I would be grateful if you could prescribe:

Lithium Brand		Strength		Dose	

Please see attached lithium work-up information sheet completed after their recent attendance at the lithium clinic / Community Mental Health Service. Regular results will be forwarded to you once the initiation phase is complete and serum lithium levels have reached the desired therapeutic value.

If you have any questions please see contact details on the attached lithium work-up sheet.

Kind regards

_____

Print name: _____

[Attach Lithium Work-Up Information – page 2 of Lithium Care Pathway]

Appendix 3: Lithium dose & pathway communication proforma

Communication Information from Consultant Psychiatrist to Primary Care
(Must be completed by consultant when pathway changes.)

Consultant name: _____ **Contact Number:** _____	**Write in CAPITAL LETTERS or use addressograph** **Surname:** …….. **First name:** …… **Hosp No. / H&C:** …….. **DOB:** ……..

Dear Dr _____ your patient is now stabilised on lithium. Please continue to prescribe lithium as below:

Lithium target range	
Lithium brand	
Lithium dose	

Please update your practice Primary Care Lithium Register as below

		Please insert ✓ to indicate pathway patient will follow
Pathway 1	**Remain in Secondary Care for review and monitoring** Secondary Care is responsible for informing the patient's GP of **all** blood monitoring results (using 'copy to' GP cipher number on lab request form). The GP should be informed **immediately** of abnormal lithium levels and action taken.	
Pathway 2	**Remain in Secondary Care for review, AND monitoring passes to Primary Care with GP agreement*.** Primary Care is responsible for informing Secondary Care of **all** blood monitoring results- using 'copy to' Consultant's name (and Lab Code if known) and hospital on lab request form. Secondary care should be informed **immediately** of abnormal lithium levels and action taken.	
Pathway 3	**Review and monitoring passes to Primary Care with GP agreement.** • Lithium blood results will not be copied to Secondary Care in this instance • If patient is persistently non-compliant with monitoring – consider change to another treatment and discuss with, or refer back to, Secondary Care	

Signed (Consultant): …… Date ……//……//……

Appendix 4: Ongoing Lithium Monitoring Communication

The Trust or GP practice responsible for a patient's ongoing lithium monitoring must use this proforma or another locally agreed mechanism to communicate lithium monitoring results:

- From Consultant to GP – for patients following Pathway One or
- From GP to Consultant - for patients following Pathway Two *(See Lithium Flowchart appendix 1)*

To (name of GP/Consultant): ……..……..…...

Address (GP Practice/Trust site) ……..…

Write in CAPITAL LETTERS or use addressograph Surname: …….. First name: …… Hosp No. / H&C: …….. DOB: ……..	**Medical Lead****	
	Tele No:	
	Cipher No/Lab Code	
	This patient is following Pathway (one or two)	

Attended for lithium monitoring* on …./…./…. (Date) **at** …… (GP Practice / Trust site)**.**

***** As per Regional Lithium Shared Care Guideline
**Name of GP/Consultant responsible for the patient's monitoring, their contact details and their GP cipher number or consultant lab code

Current Lithium dose	
Serum lithium & date (0.6 – 0.8mmol/l & elderly 0.4 - 0.8mmol/l)	
Current mental status / mood check	
Side effects and monitoring	

Please note: If lithium levels are abnormal or toxicity is suspected, medical staff must inform the patient's GP/consultant immediately (by telephone), in addition to sending this proforma.

The above lithium monitoring results have been reviewed:

by:…… (Name of GP/ Consultant#) **on** …… (Date)

Action taken (if no action, please state):

……

Treatment plan:

……..

Additional comments:

……

Signed (GP/ Consultant#)…… **Date**……

#Name and role of staff must be specified if not GP or Consultant

Appendix 5: Hypercalcaemia

Extract taken from 'Current Psychiatry', 2014 October; 13(10):61

There is an association among lithium treatment, hypercalcemia, and hyperparathyroidism.[1,2] This can occur by lithium reducing parathyroid hormone suppression or stimulating parathyroid glands.[3]

Surprisingly, many guidelines do not include a recommendation to monitor the calcium level; however, the International Society for Bipolar Disorders and other experts do recommend obtaining a calcium level before initiating lithium therapy and at least annually thereafter.[1,4] If hypercalcemia is present, assessing lithium and the parathyroid hormone level is recommended.[3]

Clinicians can continue lithium and monitor calcium if treatment is beneficial, hypercalcemia is mild, and the patient is asymptomatic.[2] For a symptomatic patient or one who has significant hypercalcemia, clinicians should consider discontinuing lithium and monitoring for a normalizing calcium level.[2] For patients with significant hypercalcemia who need lithium therapy, consultation with an endocrinologist is advised.[3]

References:

1. McKnight RF, Adida M, Budge K, et al. Lithium toxicity profile: a systematic review and meta-analysis. Lancet. 2012;379(9817):721-728.
2. Lehmann SW, Lee J. Lithium-associated hyper-calcemia and hyperparathyroidism in the elderly: what do we know? J Affect Disord. 2013;146(2): 151-157.
3. Broome JT, Solorzano CC. Lithium use and primary hyperparathyroidism. Endocr Pract. 2011; 17(suppl 1):31-35.
4. Ng F, Mammen OK, Wilting I, et al. The International Society for Bipolar Disorders (ISBD) consensus guidelines for the safety monitoring of bipolar disorder treatments. Bipolar Disord. 2009; 11(6):559-595

See also NICE Clinical Knowledge Summaries for Hypercalcaemia

http://cks.nice.org.uk/hypercalcaemia#!scenario