City and Hackney Clinical Commissioning Group
Homerton University Hospital Foundation Trust

Intranasal Desmopressin
For Cranial Diabetes Insipidus for adults

DOCUMENT TO BE SCANNED INTO ELECTRONIC RECORDS AS AND FILED IN NOTES

Patient Name:	**Date of Birth:**	**NHS No:**
Name of Referring Consultant:		**Contact number:**

INTRODUCTION – Indication and Licensing

Cranial diabetes insipidus is a condition whereby there is an inadequate release of arginine vasopressin (anti diuretic hormone)[1] giving rise to polyuria and polydipsia[2.]

Patients will often present with the following symptoms:

- Polyuria: urinary volumes ranging from 2.5 to 6 L/day
- Polydipsia
- Neurologic symptoms: seizures, headaches, visual field defects

The physical findings and clinical signs are usually not evident until vasopressin secretory capacity is reduced to <20% of normal.[4]

Desmopressin is the synthetic analogue of arginine vasopressin and is more potent and has a longer duration of action than the latter

PATIENT PATHWAY

Clinical Speciality / Indication	**Prescribing Initiated by**	**Prescribing Continued by (detail when suitable for transfer to occur)**	**Monitored by (detail when suitable for transfer to occur IF APPROPRIATE)**	**Duration of treatment**
Endocrinology Team	Hospital team or in primary care based on advice of hospital endocrinology team.	Transfer to GP once dosing is stabilised after at least 3 months	Hospital team will monitor. If patient lives far away, the GP may be asked to carry out routine BP and Sodium monitoring on an annual basis, following advice from the endocrine team.	Long-term: advised by the endocrinology team

The endocrine team at the Homerton University Hospital would initiate and titrate the dose of this medicine. Once the dose is stable, the GP would be asked to take over prescribing as part of shared care.

For some patients, it may be more appropriate for phlebotomy to be undertaken locally and administration to be carried out near to the patient's address by the GP if agreed by all parties. In this case, blood results should be sent to the endocrine department at the Homerton University Hospital for monitoring by the team.

DOSE AND ADMINISTRATION

INTRANASALLY (As desmopressin acetate)

Diabetes Insipidus

Treatment – 10 – 40 micrograms daily (in 1-2 divided doses). The hospital specialist team will advise on dose.
(Diagnosis (carried out by the hospital team)- 20 micrograms (limit fluid intake to 500ml from 1 hour before to 8 hours after treatment). 'The diagnostic dose in adults and children is 20 micrograms. Failure to elaborate concentrated urine after water deprivation, followed by the ability to do so after the administration of Desmopressin confirms the diagnosis of cranial diabetes insipidus. Failure to concentrate after the administration suggests nephrogenic diabetes insipidus).'[6]

MONITORING STANDARDS FOR MEDICATION AT THE ACUTE NHS TRUST

All monitoring is carried out by the hospital team at each outpatient visit and at the patient's annual reviews.

For some patients, it may be more appropriate for phlebotomy to be undertaken locally and administration to be carried out near to the patient's address by the GP if agreed by all parties. In this case, blood results should be sent to the endocrine department at the Homerton University Hospital for interpretation and advice.

Parameter	Frequency of Monitoring	Actions
Blood Pressure	12 monthly	Patients should be warned to avoid fluid overload (including during swimming) and to stop taking desmopressin during an episode of vomiting and diarrhoea (until fluid balance is normal). The risk of hyponatremic convulsions can also be minimised by keeping to the recommended starting doses and by avoiding concomitant use of drugs which increase secretion of vasopressin (e.g. tricyclic antidepressants).[3]
Sodium		
Weight		

KEY ADVERSE EFFECTS & ACTIONS

This section should be read in conjunction with the manufacturer's data sheet.

Adverse effects	Symptoms/signs	Actions
Fluid Retention	Hyponatremia	Seek further advice from the endocrinologist.
Nasal Disturbances	Epistaxis, Nasal Congestion, Rhinitis	Seek further advice from the endocrinologist
Hypersensitivity reactions	Fever, rigors, rash	Withdraw medicine. Seek further advice from the endocrinology team.

This only lists the key important adverse reactions – For comprehensive information on cautions, contra-indications and interactions please refer to the current British National Formulary and Summary of Product Characteristics.

CAUTIONS – DESMOPRESSIN

Asthma	Migraine
Epilepsy	Any conditions which may be aggravated by water retention)
Heart failure	Avoid fluid retention
Hypertension	

CONTRA-INDICATIONS – DESMOPRESSIN

- Hypersensitivity to desmopressin
- Cardiac insufficiency
- Polydipsia

KEY INTERACTIONS – DESMOPRESSIN

- Substances which are known to induce SIADH e.g. tricyclic antidepressants, selective serotonin re-uptake inhibitors, chlorpromazine and carbamazepine, may cause an additive antidiuretic effect leading to an increased risk of water retention and/or hyponatraemia.
- NSAIDs may induce water retention and/or hyponatraemia. It is fine to continue on NSAIDs whilst the patient is on desmopressin, however, sodium and BP may require more frequent monitoring than the usual annual monitoring when patients are first initiated on NSAIDs.

PREGNANCY AND BREAST FEEDING

It is recommended that the patient should not become pregnant whilst on the drug- Both men and women will be counselled about contraception and what to do if pregnancy occurs. The counselling should be documented in the patient notes. This should be done by the initiating team and a specific letter outlining the advice given should be sent to the GP and patient

PREGNANCY – There is a small oxytocic effect in the third trimester, increased risk of pre-eclampsia.
BREAST FEEDING- Not known to be harmful

For comprehensive information please refer to the current British National Formulary and Summary of Product Characteristics.

SHARED CARE

Shared care guideline*:* is a document which provides information allowing patients to be managed safely by primary care, secondary care and across the interface. It assumes a partnership and an agreement between a hospital specialist, GP and the patient and also sets out responsibilities for each party. The intention to shared care should be explained to the patient and accepted by them. Patients are under regular follow-up and this provides an opportunity to discuss drug therapy. Intrinsic in the shared care agreement is that the prescribing doctor should be appropriately supported by a system of communication and cooperation in the management of patients. The doctor who prescribes the medicine has the clinical responsibility for the drug and the consequence of its use**.**

Consultant

1. Ensure that the patient/carer is an informed recipient in therapy.
2. Ensure that patients understand their treatment regimen and any monitoring or follow up that is required (using advocacy if appropriate). Issue any local patient information leaflets where appropriate.
3. Ensure baseline investigations are normal before commencing treatment. Give the patient a patient held booklet for result monitoring if appropriate.
4. Initiate treatment and prescribe until the GP formally agrees to share care (as a minimum, supply the first month of treatment or until patient is stabilised).
5. Send a letter to the GP requesting shared care for this patient.
6. Clinical and laboratory supervision of the patient by blood monitoring and routine clinic follow-up on a regular basis.
7. Send a letter/results notification to the GP after each clinic attendance ensuring current dose, most recent blood results and frequency of monitoring are stated (unless otherwise covered by letter e.g. from Endocrinologist or Pharmacy Drug Monitoring Service).
8. Where the GP is not performing the phlebotomy, the blood test form MUST be annotated to request that blood results are also copied to the GP
9. Evaluation of any reported adverse effects by GP or patient.
10. Advise GP on review, duration or discontinuation of treatment where necessary. Where urgent action is required following tests the hospital team will telephone the patient and inform GP.
11. Inform GP of patients who do not attend clinic appointments.
12. Counsel the patient on contraception and what to do if pregnancy occurs. Document in the notes.
13. Ensure that backup advice is available at all times.
14. Ensure, where timing is appropriate, that the patient has received a flu vaccine prior to commencing treatment that is likely to cause immunosuppression. Document this in the patient notes and inform the GP it has been given

General Practitioner

1. Ensure that the patient understands the nature, effect and potential side effects of the drug before prescribing it as part of the shared care programme and contact the specialist for clarification where appropriate.
2. Monitor patient's overall health and well-being.
3. Report any adverse events to the consultant, where appropriate.
4. Report any adverse events to www.mhra.gov.uk/yellowcard where appropriate.
5. Help in monitoring the progression of disease
6. Prescribe the drug treatment as described.

City and Hackney Medicines Management Team

1. To provide feedback to acute trusts via Joint Prescribing and Medicines Management Group
2. To support GPs to make the decision whether or not to accept clinical responsibility for prescribing.
3. To support acute trusts in resolving issues that may arise as a result of shared care.

SHARED CARE - continued

Patient/ Carer

1. Report any adverse effects to their GP and/or specialist
2. Ensure they have a clear understanding of their treatment.
3. Report any changes in disease symptoms to GP and/or specialist
4. Alert GP and/or specialist of any changes of circumstance which could affect management of disease e.g. plans for pregnancy
5. Take/ administer the medication as prescribed
6. Undertake any monitoring as requested by the GP and/or specialist

Costs

MIMS Sept 2013, BNF September 2013

Drug Product	Cost in primary care
Desmopressin Acetate (non-proprietary) 10 micrograms/metred spray (6-mL unit – 60 metered sprays)	£10.38
Desmopressin Acetate (DDAVP) 100micrograms/ml Intranasal Solution (2.5mL)	£9.72
Desmopressin Acetate (Desmospray) 10 micrograms/metered spray (6-mL unit – 60 metered sprays)	£25.02

Relevant contact details

Consultant via switchboard	020 8510 5555
Registrar on-call out of hours	020 8510 5555
Lloyd Ward (Endocrine)	020 8510 7530 020 8510 7531
Medicines Information Pharmacist Homerton University Hospital	020 8510 7000
City and Hackney Medicines Management Team	020 3688 1037

Reference

- Drugs. 1992 Aug;44(2):216-24.Diabetes insipidus. Current treatment recommendations.
- Seckl JR, Dunger DB.University of Edinburgh, Department of Medicine, Western General Hospital, Scotland.
- Diabetes Insipidus. http://emedicine.medscape.com/article/117648-overview [Last Accessed 21/10/2012]
- British National Formulary
- Diabetes Insipidus http://www.mdconsult.com/books/page.do?eid=4-u1.0-B978-0-323-08373-7..00013-3--sc0060&isbn=978-0-323-08373-7&uniqId=372470940-330#4-u1.0-B978-0-323-08373-7..00013-3--sc0060 [Last Accessed 21/10/2012]
- Summary of Product Characteristics – Desmopressin Intranasal Solution
- SCG template adopted from NHS Tower Hamlets CCG and Barts Health NHS Trust

Approved by the Joint Prescribing & Medicines Management Group (JPG) December 2013. Review date: December 2015