DONCASTER AND BASSETLAW AREA PRESCRIBING COMMITTEE

Shared Care Protocol

for

Modafinil

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Shared care protocol developed by:
Dr S Bianchi, Consultant Respiratory Physician, STHFT
Dr K Stewart, Consultant in Palliative Medicine, STHFT
Dr G Dennis, Consultant Neurologist, STHFT
Dr S Price, Consultant Neurologist, STHFT

Reviewed by: STHFT Medicine Safety Committee
NHS Sheffield Formulary Subgroup
Doncaster and Bassetlaw CCGs MMTs

Approved by: Doncaster and Bassetlaw Area Prescribing Committee

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This is a modified version of the Sheffield Area Prescribing Group approved Shared Care Protocol for Modafinil (Issue 2 February 2020). Unlicensed uses of modafinil are not approved for shared care in Doncaster and Bassetlaw

Statement of Purpose

This shared care protocol (SCP) has been written to enable the continuation of care by primary care clinicians of **adult** patients initiated on modafinil for the licensed indication of narcolepsy at Sheffield Teaching Hospitals NHS Foundation Trust. The licensed indication for modafinil is restricted across Europe to narcolepsy only (MHRA 2014).

Unlicensed therapeutic indications for modafinil are classified as red (specialist prescribing only) on the Doncaster and Bassetlaw Medicine Traffic Light System (TLS) List and are not included in this SCP.

Users should be aware that this document is guidance on the management of a condition, not a commissioning arrangement.

Responsibilities of specialist clinician

- To discuss benefits and side effects of treatment with the patient/carer and obtain informed consent.
- To initiate modafinil in appropriate patients
- To check baseline BP (and document in patient held booklet) and ECG +/- 24 hour tape (if indicated – palpitations or cardiac risk factors)
- To ensure that arrangements are in place to undertake fortnightly BP monitoring and checks for side effects, including rash and hallucinations
    - This may be undertaken by a community pharmacist or by the patient themselves providing they have a BP meter which they have been trained to use and they know when to seek medical advice. BP results should be documented in the patient held booklet.
- To ensure that women of childbearing potential are aware of the interaction with hormonal contraception and are receiving an appropriate contraceptive method
- To prescribe the modafinil until the dose is stabilised
- To contact patient's primary care prescriber to request prescribing under shared care
- To advise the primary care prescriber regarding continuation of treatment, including the length of treatment
- To discuss any concerns with the primary care prescriber regarding the patient's therapy
- To undertake annual monitoring of BP and ECG +/- 24 hour tape (where indicated)

Responsibilities of the primary care clinician

- To refer appropriate patients to secondary care for assessment
- To agree to prescribe for patients in line with the shared care agreement
- To report any serious adverse reaction through the MHRA 'yellow card' reporting scheme and to the referring specialist
- To continue to prescribe for the patient as advised by the specialist
- To inform the specialist if the patient discontinues treatment for any reason
- To seek the advice of the specialist if any concerns with the patient's therapy, including waning of effect over time and problematic side effects
- To undertake blood pressure and heart rate monitoring as described in the monitoring protocol
- To conduct an annual medication review
- In the event that the primary care prescriber is not able to prescribe, or where the SCP is agreed but the specialist is still prescribing certain items e.g. hospital only product, the primary care prescriber will provide the specialist with full details of existing therapy promptly by a secure method on request
- For medication supplied from another provider; prescribers are advised to ensure that it is recorded appropriately on their Clinical Practice System.

Responsibilities of Patients or Carers

- To be fully involved in, and in agreement with, the decision to move to shared care
- To attend hospital and primary care clinic appointments and to bring their patient held booklet; failure to attend will potentially result in the medication being stopped
- Present rapidly to the primary care prescriber or specialist should their clinical condition significantly worsen
- Report any suspected adverse effects to their specialist or primary care prescriber whilst taking modafinil
- To read the product information given to them
- To take modafinil as prescribed
- Inform the specialist, primary care prescriber or community pharmacist dispensing their prescriptions of any other medication being taken – including over-the-counter medication

Indication

Indication	**Clinical Speciality**
Narcolepsy (with or without cataplexy) (licensed indication)	Neurology sleep clinic

Selection of patients

Clinical Speciality	**Patient Selection Criteria**
Neurology sleep clinic	Detailed clinical and polysomnographic evaluation will be undertaken for an accurate diagnosis. Exclusion of patients with contra-indications (severe hypertension and cardiac arrhythmias). Careful consideration will also be given to any precautions to use detailed in the SPC.

Dosage

Clinical Speciality	**Dosing Regime**
Neurology sleep clinic	Initial dose: 100mg each morning. Increased fortnightly as necessary by increments of 100mg to a maximum dose of 400mg daily in one or two divided doses. The second dose should be taken no later than mid afternoon.

Contra-indications

Note: the current BNF and the SPC remain authoritative

- Hypersensitivity to the active substance or to any of the excipients
- Uncontrolled moderate to severe hypertension and in patients with cardiac arrhythmias
- The SPC states that modafinil is not recommended for use during pregnancy and in women of childbearing potential not using effective contraception (see drug interactions). Refer women who become pregnant or who are planning conception to the specialist.
- Modafinil should not be used during breast feeding.

Side –effects

The details below are not a complete list and the current BNF and the SPC remain authoritative.

Common side effects include:

Headache, decreased appetite, nervousness, insomnia, anxiety, depression, abnormal thinking, confusion, dizziness, somnolence, paraesthesia, blurred vision, tachycardia, palpitation, vasodilatation, abdominal pain, nausea, dry mouth, diarrhoea, dyspepsia, constipation, asthenia, chest pain, abnormal liver function tests, dose related increases in alkaline phosphatase and gamma glutamyl transferase have been observed.

Patients and relatives /carers are to be made aware of the possibility of significant personality change.

Monitoring

Once stabilised, at least 3 monthly blood pressure and heart rate checks in primary care while on therapy.

Modafinil should be discontinued in patients who develop arrhythmia or moderate to severe hypertension (refer to NICE NG136 [August 2019], Hypertension in adults – diagnosis and management); and not restarted until the condition has been adequately evaluated and treated.

Serious rash requiring hospitalisation and discontinuation of treatment has been reported with the use of modafinil occurring within 1 to 5 weeks after treatment initiation. Modafinil should be discontinued at the first sign of rash and not re-started.

Although there have been a limited number of reports, multi-organ hypersensitivity reactions may result in hospitalization or be life-threatening. If suspected, modafinil should be discontinued.

If psychiatric symptoms develop in association with modafinil treatment, including psychotic, manic and suicide related symptoms, modafinil should be discontinued and not restarted.

Interactions

The details below are not a complete list and the current BNF and the SPC remain authoritative.

Anticonvulsants: Co-administration of potent inducers of CYP activity, such as carbamazepine and phenobarbital, could reduce the plasma levels of modafinil. Due to a possible inhibition of CYP2C19 by modafinil and suppression of CYP2C9 the clearance of phenytoin may be decreased when modafinil is administered concomitantly. Patients should be monitored for signs of phenytoin toxicity, and repeated measurements of phenytoin plasma levels may be appropriate upon initiation or discontinuation of treatment with modafinil.

Hormonal contraceptives: The effectiveness of hormonal contraceptives may be impaired due to induction of CYP3A4/5 by modafinil. The Faculty of Sexual and Reproductive Health (FSRH) guidance recommends depot medroxyprogesterone acetate, levonorgestrel-releasing intrauterine system, or the copper intrauterine device as suitable contraceptive methods alongside enzyme-inducing drugs. For emergency contraception a copper intrauterine device is recommended; if this is unsuitable a double dose (3mg) of levonorgestrel can be offered but its efficacy is unknown.

Adequate contraception will require continuation of these methods for at least 2 months after stopping modafinil, as per the SPC.

Antidepressants: A number of tricyclic antidepressants and selective serotonin reuptake inhibitors are largely metabolised by CYP2D6. In patients deficient in CYP2D6 (approximately 10% of a Caucasian population) a normally ancillary metabolic pathway involving CYP2C19 becomes more important. As modafinil may inhibit CYP2C19, lower doses of antidepressants may be required in such patients.

Anticoagulants: Due to possible suppression of CYP2C9 by modafinil the clearance of warfarin may be decreased when modafinil is administered concomitantly. Prothrombin times should be monitored regularly during the first 2 months of modafinil use and after changes in modafinil dosage.

Ordering information

Generic modafinil is available through regular pharmaceutical wholesale chains.

Support, education and information

Neurology

Sheffield sleep clinic: Dr Gary Dennis, Dr Siew Wong, Dr Channa Hewamadduma, Dr Andrew Gibson

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Full list of side-effects is given in the modafinil summary of product characteristics (SPC), available from www.emc.medicines.org.uk

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