

# Oxygen and Cluster Headache for Prescribers

## Background

Cluster Headache is a rare condition with a prevalence of approximately 1:1000 adults. The condition usually starts in early adulthood but can occur through the whole age range. It may spontaneously improve with age. The diagnosis is often delayed, typically 2-3yrs. Confusion with migraine is common. Attacks last between 15mins and 3 hours and occur at a frequency ranging from one every alternate day to up to eight daily. The headache is excruciating, typically periorbital and associated with cranial autonomic features. Unlike migraine, sufferers are restless and agitated during attacks. Suicide is a recognised concern due to the severity of the condition. Patients fall into 2 groups:

1. Episodic CH affects 80-90%: diagnosed when individuals experience recurrent bouts with a duration of more than a week and separated by remissions lasting more than a month. Most patients have one or two annual cluster periods, each lasting between one and three months. Often the bouts occur in the same month of the year.

2. Chronic CH affects 10-20%: diagnosed when either no remission occurs within one year or the remissions last less than one month.

## Oxygen therapy

High flow oxygen is very effective in some patients in relieving symptoms of an acute cluster headache quickly and safely. Consideration should also be given to whether the patient may have a long-term condition which could put them at risk if they are prescribed uncontrolled high flow home oxygen without specialist assessment.

Portable oxygen cylinders are only supplied in exceptional circumstances and will need to be done through the respiratory medicine department.

## Guidance to patient during an attack

The general guidance for patients is that if there is no relief from oxygen therapy in within 15 minutes, they should cease using it. If the oxygen has not worked, the patient should turn off the oxygen and try again with the next attack. If an attack is successfully aborted, the patient should be advised to stay on the oxygen for 5 minutes after the pain has gone to “mop up” the attack and prevent possible rebound, which is described by some patients.

If oxygen is not successful ensure the patient returns the equipment.

## Prescribing oxygen

the supplier will vary from region to region. In the southwest fill in a Home oxygen order form (HOOF) A.

<https://www.airliquidehomehealth.co.uk/hcp/hoofa>

100 % oxygen is required. The requirements are: Static: 12-15 L/min flow as required x1 (static back-up cylinder x1 if oxygen is successful). Non rebreathe high concentration mask fitted with a reservoir.

A demand valve is an alternative to a face mask and bag although not all patients get on with these but sometimes people can fall asleep after an attack and the oxygen is left on and these may be useful in this case.

The supplier will require a home oxygen consent form (HOCF) and a home oxygen risk mitigation (IHORM) form to be completed and placed in the patients notes in all cases. These can be downloaded from the supplier's web site.

### **Oxygen and smoking**

Many cluster patients will be smokers. Two out of every three fires where there is home oxygen are the results of the user smoking and one in four people where the fire is a result of smoking while using oxygen die from their injuries. Vaping is also a significant risk.

It is a good opportunity to ask the patient to seriously consider stopping. Due to the very significant impact of cluster headache, if other acute options are not satisfactory smoking is not a contraindication. You will need to assess the risks as below and ensure the patient has a full understanding of the issues. It is good practise to take written consent that you have done this. It may be appropriate to ask the patient to only smoke outdoors.

Factors to consider in a risk assessment are:

- tobacco dependence
- alcohol dependence
- substance misuse
- cognitive or sensory impairment
- mental health disorder
- social isolation
- Other smokers in occupancy
- multiple occupancy
- social deprivation
- Open fires or gas cooking
- location of oxygen equipment
- smoke alarms in situ