

## NCORE Study: Aprepitant Information

### Overview of use & research

Aprepitant is used clinically and has been licensed for many years for treating nausea in people receiving chemotherapy for cancer. It has also been tested as a possible treatment for people with depression, anxiety and alcoholism.

Our previous brain imaging study ICCAM (Imperial College, Cambridge, and Manchester) found that certain brain networks' response to reward and emotional processing were impaired in abstinent drug and alcohol dependent participants relative to controls. The administration of aprepitant improved these impaired brain responses, indicating that aprepitant might be beneficial when used clinically in substance dependence.

Additionally, results from previous studies using aprepitant in opiate abuse were supportive of a role for aprepitant to reduce opiate craving and withdrawal.

### Drug Administration

On each of the four study days you will be given a capsule to take orally with water. It will be either be a drug called aprepitant (320mg), or a placebo dummy pill.

The dosing will be randomised, double-blind and crossed-over. This means that you will receive both medications (aprepitant and placebo), one at each visit in a random order, but you and the researchers will not know which one is which. This is so that any changes in the measurements we take are not biased by expectation.

### Safety Overview

Aprepitant is safe and well tolerated. The dose used in this study (320mg) is higher than the usual dose prescribed for nausea (125mg), but is still safe and well-tolerated. This dose has been chosen to ensure that there is enough drug to elicit a response. This is because there is evidence that doses of 300mg and above are required to produce effects on brain function such as antidepressant and anxiolytic effects.

From our experience with aprepitant, we do not anticipate any issues from this dose. The medication will only be taken once at each visit, rather than daily. In studies of single doses, few side effects have occurred at doses of 320mg.

The most common side effects that have occurred in patients taking the drug regularly are mild and should resolve whilst you are with us and include hiccups, upset stomach or indigestion, constipation, diarrhoea, headache, fatigue, headache and dizziness.

There is no indication of a drug interaction between aprepitant and methadone, but aprepitant medication may change the way in which you perceive the effect of your methadone. We are interested in measuring this change, and it will be assessed as part of the study. Aprepitant will not induce any opiate withdrawal.