Rapid Paediatric Series Manual

Ketamine for Non Cancer Pain-Series 41

What is this series about?

Ketamine is primarily used as an anaesthetic agent and possesses analgesic properties through N-methyl-D-aspartate receptor antagonism. It is widely used for paediatric general and regional anaesthesia, procedural sedation, as an adjunct to opioid analgesia, and as a low dose continuous infusion for the treatment of both acute and complex pain. Subanaesthetic intravenous administration has been shown to reduce the level of pain in children (Sheedy et al 2015; Sheedy et al 2017) who had not previously responded to standard pharmacological treatments.

This Rapid Paediatric Chronic Pain Program series seeks to establish the broad utility and toxicity of ketamine for children with chronic non cancer and cancer pain in "real life" situations across the world. It is designed to minimise the workload for any individual site through multi-site collaboration and enable RAPID data collection relatively quickly and easily.

In this study the data points are at baseline then 48hrs, 72hrs and 96hrs after baseline and 3 months after the ketamine infusion has ceased. This is reflective of the many conditions requiring a longer-term involvement from Paediatric Chronic Pain services and to ensure the opportunity for the majority of children to reach a therapeutic drug level.

Patient tracking

A log or spreadsheet should be developed in order track the patient medical record number and the study ID number allocated to each patient when commenced on a medication/intervention. This spreadsheet will be the only link between the data collected and the identity of the patient and remains the property of the participating site. This information should not be shared with the Palliative Care Clinical Studies Collaborative (PaCCSC) IMPACCT team at UTS. The spreadsheet should also contain the date and time of the data entry at each time point.

Patient PID	Patient name	Patient medical record number	Date of initial data entry	Time of data entry

Allocating Patient ID number

a) The ID number for each set of data collected is a composite number built up using a series of three codes.

i) Site identifier.

This is the number allocated to each participating site as a two- or three-digit number.

ii) Medication number

The medication number for the Paediatric Ketamine Non-Cancer Pain series is **41.**

iii) Patient number

This is usually a three-digit number e.g., **001.**

Therefore, the full patient ID number will be.

Site identifier/medication number/patient number e.g., 01/**41**/001

Time points

There are 6 main time points where data is required.

1. Commencement of the medication (baseline) (T_0)
2. 24hrs after baseline - symptomatic benefit assessment (T_1)
3. 48hrs after baseline – symptomatic benefit assessment (T_2)
4. 72hrs after baseline – symptomatic benefit assessment (T_3)
5. 96hrs after baseline – symptomatic benefit assessment (T_4)
6. 3 months after infusion discontinued – symptomatic benefit assessment (T_E)

Other data collection points are:

1. Adverse events/harm at unexpected time points (T_1, T_2, T_3, T_4 and T_E)
    - There can be up to three other times where toxicity can be recorded (Adhoc a, b & c)
    - These pages should be left blank if there are no unexpected adverse events.
2. Cessation of the medication
    - Complete this page if the medication/intervention of interest is ceased at any time during the data collection period for any reason.
3. Date lost to follow-up
    - Enter the date child was lost to follow-up if/when known.
    - If the lost to follow-up date is entered during the data collection period, no further prompts will be received.

Each medication/intervention of interest will have different time points for clinical benefit and adverse events according to its profile. Time points are determined by each Series subcommittee and are based on clinical experience and published product information.

Adverse event assessment

Adverse events (harms) are assessed using a standard scale from the National Cancer Institute Criteria for Adverse Events (NCI CTCAE). The NCI uses a scale between 1 and 3 to 5 ranging from mild to serious (resulting in death) symptoms or sequelae. The NCI criteria are provided as a reference document which is supplied separately and should be referred to for any events recorded is association with the patient's clinical course.

Each medication/intervention has a number of pre-populated expected adverse events (harms). These are listed at each time point, and the NCI grade is described and provided for easy reference. A grade should be provided for each listed adverse event.

If unexpected adverse events occur at any other time, either before or after any pre-determined time point, these should be recorded in the unexpected adverse event section of the Case Report Form (CRF). Up to three other time points can be recorded.

Data entry

Login can be acquired by emailing **RAPID@uts.edu.au** and requesting the login to the series that is applicable to you.