21 April 2023

**Direct Healthcare Professional Communication**

Dear Healthcare Professional,

**Ketalar® 10 mg/ml Injection 20ml vial (Ketamine hydrochloride) –**
**Temporary supply of an unlicensed imported product from Switzerland**

Due to a delay in manufacturing, Pfizer Limited are unable to supply packs of Ketalar 10 mg/ml Solution for Injection (ketamine hydrochloride) - PL 00057/0529 to the UK market.

To assist with continued supply in April and May, Pfizer Limited has obtained agreement from the Medicines and Healthcare products Regulatory Agency (MHRA) to supply a limited quantity of the corresponding product; Ketalar 10 mg/ml Injection - Licence number is 35073) from Switzerland. **Resupply is expected during November 2023.**

Whilst the strength and excipients of the Swiss formulation being supplied on a temporary basis are identical to the licensed UK Ketalar 10 mg/ml Injection, there are language differences in the presentation and prescribing information. Please read the following information carefully and ensure all healthcare professionals involved in the administration of Ketalar 10 mg/ml Injection are familiar with the details and the process for administering the medicine.

**A summary of the key points are as follows:**

- The Swiss product is unlicensed in the UK. This means that the imported product has not been given a Marketing Authorisation by the MHRA.
- The Swiss Ketalar 10 mg/ml Injection has the same formulation as the UK licensed product; a comparison of the two products is shown in the table on page 2.
- The product from Switzerland is being supplied in two batches are detailed below:

| Batch no. | Expiry Date |
|---|---|
| 041014 | 30.09.2025 |
| 042014 | 30.09.2025 |

- The total number of packs to be imported is equivalent to 11 weeks of supply to the UK and have been allocated by the DHSC against historical purchases.

- All orders should be placed directly with Pfizer Customer Service on:

    - **0800 0327907** or **0345 608 8866**

- Pfizer Limited confirm that this Healthcare Professional letter and the UK Patient Information Leaflet for Ketalar 10 mg/ml Solution for Injection (ketamine hydrochloride) - PL 00057/0529 will be sent electronically at point of order and a hard copy of the DHCP will be sent with the order

- **Please ensure all relevant staff are made aware of the content of this letter and that the information is communicated to parents and caregivers.**

**Background to safety issue**

Due to a manufacturing issue, caused by a delay in the availability of API, Ketalar 10 mg/ml Solution for Injection (ketamine hydrochloride) - PL 00057/0529 has been out of stock in the UK since March 2023.

Resupply is expected during November 2023.

To help mitigate the shortage we have obtained a limited quantity of the corresponding product; Ketalar 10 mg/ml Injection - Licence number is 35073 from Switzerland.

**Key aspects of the UK licensed product and Swiss unlicensed product are detailed below.**

| | UK | Switzerland |
|---|---|---|
| | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** |
| **Licence Number** | PL 00057/0529 | 35073 |
| **Pack Size** | 1 vial per pack | 25 vials in one pack |
| **Appearance** | Solution for Injection or Infusion<br>A clear solution for injection or infusion. | Sterile Solution for intravascular infusion |
| **Excipients (per vial)** | Each 1 ml of solution contains: ketamine hydrochloride equivalent to 10 mg ketamine base per ml.<br><br>Additional Excipients are:<br>Sodium chloride<br>Benzethonium chloride<br>Water for injections | Each 1 ml solution for injection contains: Ketamine 10 mg as ketamine hydrochloride.<br><br>Additional Excipients are:<br>Sodium chloride<br>Benzethonium chloride<br>Water for injection |
| **Packaging information** | 20 ml white neutral glass vial with rubber closure and an aluminium seal with a polypropylene flip-off top cap containing 20ml of solution as 10 mg ketamine base per ml.<br><br>**Pack Size:**<br>1 vial per pack. | 20 ml white neutral glass vial with rubber closure and an aluminium seal with a polypropylene flip-off top cap containing 20ml of solution as 10 mg ketamine base per ml.<br><br>**Pack Size:**<br>5 vials in one single pack.<br>5 packs in a carton. |
| **Posology and method of administration** | **Preoperative Preparation**<br>Premedication with an anticholinergic agent (e.g. atropine, hyoscine or glycopyrolate) or another drying agent should be given at an appropriate interval prior to induction to reduce ketamine-induced hypersalivation.<br>Midazolam, diazepam, lorazepam, or flunitrazepam used as a | **Preoperative Preparation**<br>Atropine, scopolamine or other secretion inhibitors should be given in usual way.<br>Preceding treatment with adrenergic drugs should be discontinued prior to anesthetic treatment.<br><br>The use of droperidol (0.1 mg/kg i.m.) or diazepam (0.1 mg/kg i.m.) has been |

| | UK | Switzerland |
|---|---|---|
| | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** |
| | premedicant or as an adjunct to ketamine, have been effective in reducing the incidence of emergence reactions.<br><br>**Intramuscular Administration**<br>An intramuscular dose of 10 mg/kg of bodyweight usually produces surgical anaesthesia within 3 to 4 minutes following injection and the anaesthetic effect usually lasts 12 to 25 minutes. Return to consciousness is gradual.<br>The initial dose of Ketalar administered intramuscularly may range from 6.5 mg/kg to 13 mg/kg (in terms of ketamine base). A low initial intramuscular dose of 4 mg/kg has been used in diagnostic manoeuvres and procedures not involving intensely painful stimuli. A dose of 10 mg/kg will usually produce 12 to 25 minutes of surgical anaesthesia.<br><br>**Intravenous Infusion**<br>The use of Ketalar by continuous infusion enables the dose to be titrated more closely, thereby reducing the amount of drug administered compared with intermittent administration. This results in a shorter recovery time and better stability of vital signs.<br>A solution containing 1 mg/ml of ketamine in dextrose 5% or sodium chloride 0.9% is suitable for administration by infusion. | shown to reduce the likelihood of emergence reactions.<br><br>**Intramuscular administration**<br>Initial dose: 4-8 mg/kg body weight.<br>Surgical tolerance is attained within a few minutes and, from experience, lasts some 12-25 minutes.<br>If the initial dose is divided between several intramuscular sites, the dose has to be reduced (3-5 mg/kg).<br><br>**Intravenous Infusion**<br>*Prolongation of anesthesia*<br>If necessary, a further half or full dose can be injected additionally by either intravenous or intramuscular route, to prolong Ketalar anesthesia. Nystagmus, movements in response to stimuli or vocalisation indicate that anesthesia is becoming less effective, and an additional injection is required. |

| | UK | Switzerland |
|---|---|---|
| | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** |
| | **General Anaesthesia Induction**<br>An infusion corresponding to 0.5 – 2 mg/kg as total induction dose.<br>The initial dose of Ketalar administered intravenously may range from 1 mg/kg to 4.5mg/kg (in terms of ketamine base). The average amount required to produce 5 to 10 minutes of surgical anaesthesia has been 2.0 mg/kg. It is recommended that intravenous administration be accomplished slowly (over a period of 60 seconds). More rapid administration may result in respiratory depression and enhanced pressor response.<br><br>**Maintenance of anaesthesia**<br>Anaesthesia may be maintained using a microdrip infusion of 10 - 45 microgram/kg/min (approximately 1 – 3 mg/min). The rate of infusion will depend on the patient's reaction and response to anaesthesia. The dosage required may be reduced when a long-acting neuromuscular blocking agent is used.<br><br>Lightening of anaesthesia may be indicated by nystagmus, movements in response to stimulation, and vocalization. Anaesthesia is maintained by the administration of additional doses of Ketalar by either the intravenous or intramuscular route.<br>Each additional dose is from ½ to the full induction dose recommended | **Maintenance of anaesthesia**<br>Intravenous ketamine anesthesia may also be maintained as a continuous infusion. In general, 500 mg ketamine in 500 ml dextrose or saline solution are used for this purpose, and infused at a rate of 20-60 drops/minute for the maintenance dose. The total dose required is between 2-6 mg/kg/hour, depending on whether ventilation is being carried out with pure oxygen, e.g. in a risk patient (approx.<br>6 mg/kg/hour), or whether nitrous oxide gas/oxygen or diazepam are used as supplements (2-4 mg/kg/hour).<br><br>If ketamine is to be given as a continuous infusion, anesthesia may also be induced with an initial rapid infusion (80-100 drops/min) instead of giving an i.v. bolus injection.<br>If the rate of infusion is then reduced considerably (0.2-0.5 mg/kg/hour) |

| | UK | Switzerland |
|---|---|---|
| | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** |
| | above for the route selected for maintenance, regardless of the route used for induction.<br>The larger the total amount of Ketalar administered, the longer will be the time to complete recovery<br><br>Purposeless and tonic-clonic movements of extremities may occur during the course of anaesthesia. These movements do not imply a light plane and are not indicative of the need for additional doses of the anaesthetic. | marked analgesia with only light sleepiness is soon achieved.<br><br>Under anesthetics, involuntary movements of the extremities may occur. These movements should not be taken as signs of a light plane of anesthesia and require no further injection.<br><br>**Children and adolescents**<br>Due to potential respiratory complications ketamine must not be used in children less than 3 months of age. |

| | | |
|---|---|---|
| **Shelf Life and Storage** | **Shelf life**<br><br>5 years.<br>Discard any unused product at the end of each operating session.<br><br>For single use only.<br><br>**Shelf life after opening**<br><br>After dilution the solutions should be used immediately.<br><br>**Special precautions for storage**<br><br>This medicinal product does not require any special temperature | **Shelf life**<br><br>Do not use this medicine after the expiry date stated by «EXP» on the container.<br><br>Single use only.<br><br>**Shelf life after opening**<br><br>For microbiological reasons, the product should be used immediately after opening. Discard unused product after dosing.<br><br>**Special precautions for storage**<br><br>Do not store above 25°C. Do not freeze. Keep out of the reach of children. |

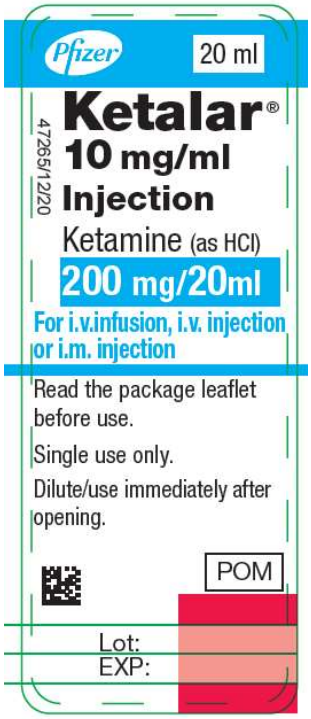
| | | |
|---|---|---|
| | storage conditions. Store in the original container. Keep the vial in the outer carton in order to protect from light. Do not freeze. | |

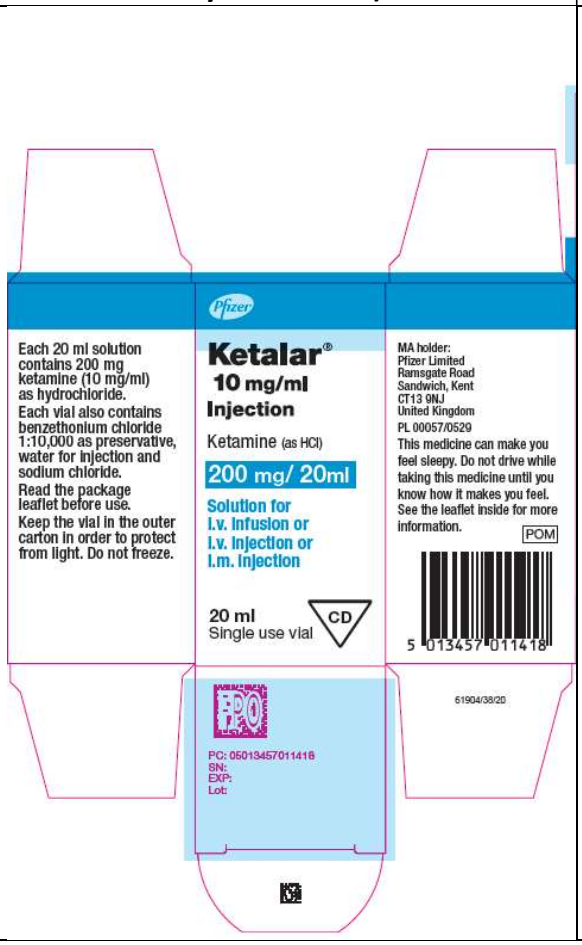
The UK Summary of Product Characteristics and Patient Information Leaflet for Ketalar 10 mg/ml Solution for Injection (ketamine hydrochloride) - PL 00057/0529 can be found at: https://www.medicines.org.uk/emc/product/2231

**Swiss batch and packaging information for Ketalar 10 mg/ml Solution for Injection:**

| Batch no. | Expiry Date |
|---|---|
| 041014 | 30.09.2025 |
| 042014 | 30.09.2025 |

**Packaging Configuration**
5 individually labelled vials in one single pack.
5 packs in a carton.

| | UK | Switzerland |
|---|---|---|
| | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** |
| **LABEL:** |  |  |

| | UK | Switzerland |
|---|---|---|
| | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** | **Ketalar® 10 mg/ml Injection (Ketamine hydrochloride)** |
| **OUTER CARTON:** |  |  |

**Call for reporting of suspected Adverse Reactions or Product Quality Complaints:**

Healthcare professionals are asked to report suspected adverse reactions to the Yellow Card Scheme electronically. Report via the website https://yellowcard.mhra.gov.uk/, the free Yellow Card app available from the Apple App Store or Google Play Store, and some clinical IT systems (EMIS, SystmOne, Vision, MiDatabank) for healthcare professionals. Suspected side effects can also be reported by calling 0800 731 6789 for free.

When reporting please provide as much information as possible, including information about medical history, any concomitant medication, onset timing, treatment dates, and product brand name.

**Further Information:**

Ketalar 10 mg/ml Injection (Ketaminum/Ketamine) - Licence number is 35073 from

Switzerland can be ordered through Pfizer's Customer Contact Centre directly on 0845 608 8866, PIP code **802-5132**. Please see batch details below:

| Batch Number | Expiry Date |
|---|---|
| 041014 | 30.09.2025 |
| 042014 | 30.09.2025 |

**Please note expiry of the Ketalar 10 mg/ml Injection is 30-September-2025**

If you have any questions about this letter, please contact Pfizer Medical Information at the following address:

**Medical Information**, Pfizer Limited, Walton Oaks, Dorking Road, Tadworth, Surrey KT20 7NS. United Kingdom. Telephone: **01304 616161** or visit https://www.pfizermedicalinformation.co.uk/

Yours faithfully,

DocuSigned by:
Samantha Howland
BC6C6601D50740F...

**Samantha Howland**
**UK Medical Director**
**Pfizer Hospital and Internal Medicines**