SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT

Fentanyl 50 micrograms/ml, solution for injection

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Fentanyl citrate 78.5 micrograms equivalent to 50 micrograms per ml fentanyl base.
(100 micrograms/2ml and 500micrograms/10ml total volume)

For excipients, see Section 6.1.

3 PHARMACEUTICAL FORM

Solution for injection
(Colourless solution)

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

Fentanyl is an opioid analgesic used:

- In low doses to provide analgesia during short surgical procedures.
- In high doses as an analgesic/respiratory depressant in patients requiring assisted ventilation.
- In combination with a neuroleptic in the technique of neuroleptanalgesia.
- In the treatment of severe pain, such as the pain of myocardial infarction.

4.2 Posology and method of administration

Prior to starting treatment with opioids, a discussion should be held with patients to put in place a strategy for ending treatment with fentanyl in order to minimise the risk of addiction and drug withdrawal syndrome (see section 4.4).

Route of administration
Intravenous administration either as a bolus or by infusion.

Intramuscular administration.

Fentanyl should be given only in an environment where the airway can be controlled and by personnel who can control the airway (see section 4.4 Special warnings and precautions).

To avoid bradycardia, it is recommended to administer a small intravenous dose of an anti-cholinergic just before anaesthetic induction.

It is recommended to wear gloves while opening the ampoule (see section 6.6 Special precautions for disposal and other handling).

Posology
Fentanyl, by the intravenous route, can be administered to both adults and children. The dose of Fentanyl should be individualised according to age, body weight, physical status, underlying pathological condition, use of other drugs and type of surgery and anaesthesia.

Adults
The usual dosage regimen in adults is as follows:

	Adults	
	Initial	Supplemental
Spontaneous Respiration	50-200 micrograms	50 micrograms
Assisted Ventilation	300-3500 micrograms	100-200 micrograms

Doses in excess of 200 mcg are for use in anaesthesia only. As a premedicant, 1-2 ml Fentanyl may be given intramuscularly 45 minutes before induction of anaesthesia. After intravenous administration in unpremedicated adult patients, 2 ml Fentanyl may be expected to provide sufficient analgesia for 10-20 minutes in surgical procedures involving low pain intensity. 10 ml Fentanyl injected as a bolus gives analgesia lasting about one hour. The analgesia produced is sufficient for surgery involving moderately painful procedures. Giving a dose of 50 mcg/kg Fentanyl will provide intense analgesia for some four to six hours, for intensely stimulating surgery.
Fentanyl may also be given as an infusion. In ventilated patients, a loading dose of Fentanyl may be given as a fast infusion of approximately 1 mcg/kg/min for the first 10 minutes followed by an infusion of approximately 0.1 mcg/kg/min.
Alternatively the loading dose of Fentanyl may be given as a bolus. Infusion rates should be titrated to individual patient response; lower infusion rates may be adequate. Unless it is planned to ventilate post-operatively, the infusion should be terminated at about 40 minutes before the end of surgery.
Lower infusion rates, e.g. 0.05-0.08 mcg/kg/minute are necessary if spontaneous ventilation is to be maintained. Higher infusion rates (up to 3 mcg/kg/minute) have been used in cardiac surgery.
Fentanyl is chemically incompatible with the induction agents thiopentone and methohexitone because of wide differences in pH.

Paediatric population

Children aged 12 to 17 years old:
Follow adult dosage.

Children aged 2 to 11 years old:
The usual dosage regimen in children is as follows:

	Children		
	Age	Initial	Supplemental
Spontaneous Respiration	2- 11 years	1 -3 micrograms/kg	1 -1.25 micrograms/kg
Assisted Ventilation	2- 11 years	1 -3 micrograms/kg	1 – 1.25 micrograms/kg

Use in children:
Analgesia during operation, enhancement of anaesthesia with spontaneous respiration
Techniques that involve analgesia in a spontaneous breathing child should only be used as part of an anaesthetic technique, or given as part of a sedation/ analgesia technique with experienced personnel in an environment that can manage sudden chest wall rigidity requiring intubation, or apnoea requiring airway support (see section 4.4).

Use in elderly and debilitated patients:
As with other opioids, the initial dose should be reduced in the elderly (>65 years of age) and in debilitated patients. The effect of the initial dose should be taken into account in determining supplemental doses.

Obese patients:
In obese patients there is a risk of overdosing if the dose is calculated based on body weight. Obese patients should have dosage calculated according to their estimated lean body mass.

Renal Impairment
In patients with renal impairment reduced dosing of Fentanyl should be considered and these patients should be observed carefully for signs of fentanyl toxicity (see section 5.2 Pharmacokinetic properties).

4.3 Contraindications

1) Known intolerance to fentanyl or other morphinomimetics.
2) Respiratory depression and obstructive airways disease.
3) Concurrent administration with monoamine oxidase inhibitors (including moclobemide) or within 2 weeks of their discontinuation.
4) Contraindicated in opioid naïve patients.

4.4 Special warnings and precautions for use

Tolerance and Opioid use disorder (abuse and dependence)

Tolerance, physical dependence, and psychological dependence may develop upon repeated administration of opioids.

Repeated use of opioids may lead to Opioid use disorder (OUD). Abuse of intentional misuse of opioids may result in overdose and/or death. The risk of developing OUD is increased in patients with a personal or a family history (parents or siblings) of substance use disorders (including alcohol use disorder), in current tobacco users or in patients with a personal history of other mental health disorders (e.g. major depression, anxiety and personality disorders).

Additional support and monitoring may be necessary when prescribing for patients at risk of opioid misuse.

A comprehensive patient history should be taken to document concomitant medications, including over-the-counter medicines and medicines obtained on-line, and past and present medical and psychiatric conditions.

Patients may find that treatment is less effective with chronic use and express a need to increase the dose to obtain the same level of pain control as initially experienced. Patients may also supplement their treatment with additional pain relievers. These could be signs that the patient is developing tolerance. The risks of developing tolerance should be explained to the patient.

Overuse or misuse may result in overdose and/or death. It is important that patients only use medicines that are prescribed for them at the dose they have been prescribed and do not give this medicine to anyone else.

Patients should be closely monitored for signs of misuse, abuse, or addiction. The clinical need for analgesic treatment should be reviewed regularly.

Drug withdrawal syndrome
Prior to starting treatment with any opioids, a discussion should be held with patients to put in place a withdrawal strategy for ending treatment with fentanyl.

Drug withdrawal syndrome may occur upon abrupt cessation of therapy or dose reduction. When a patient no longer requires therapy, it is advisable to taper the dose gradually to minimise symptoms of withdrawal. Tapering from a high dose may take weeks to months.

The opioid drug withdrawal syndrome is characterised by some or all of the following: restlessness, lacrimation, rhinorrhoea, yawning, perspiration, chills, myalgia, mydriasis and palpitations. Other symptoms may also develop including irritability, agitation, anxiety, hyperkinesia, tremor, weakness, insomnia, anorexia, abdominal cramps, nausea, vomiting, diarrhoea, increased blood pressure, increased respiratory rate or heart rate.

If women take this drug during pregnancy, there is a risk that their newborn infants will experience neonatal withdrawal syndrome.

Hyperalgesia
Hyperalgesia may be diagnosed if the patient on long-term opioid therapy presents with increased pain. This might be qualitatively and anatomically distinct from pain related to disease progression or to breakthrough pain resulting from development of opioid tolerance. Pain associated with hyperalgesia tends to be more diffuse than the pre-existing pain and less defined in quality. Symptoms of hyperalgesia may resolve with a reduction of opioid dose.

Warnings:
Following intravenous administration of fentanyl, a transient fall in blood pressure may occur, especially in hypovolaemic patients. Appropriate measures to maintain a stable arterial pressure should be taken.

Respiratory Depression
As with all potent opioids, profound analgesia is accompanied by marked respiratory depression, which may persist into or recur in the early postoperative period. Care should be taken after large doses or infusions of fentanyl to ensure that adequate spontaneous breathing has been established and maintained before discharging the patient from the recovery area.

Significant respiratory depression will occur following the administration of fentanyl in doses in excess of 200 mcg. This, and the other pharmacological effects of fentanyl, can be reversed by specific opioid antagonists, but additional doses may be necessary because the respiratory depression may last longer than the duration of action of the opioid antagonist.

Resuscitation equipment and opioid antagonists should be readily available. Hyperventilation during anaesthesia may alter the patient's response to CO2, thus affecting respiration postoperatively.

Administration in labour may cause respiratory depression in the new born infant.

Cardiac disease
Bradycardia, and possibly cardiac arrest, can occur if the patient has received an insufficient amount of anticholinergic, or when fentanyl is combined with nonvagolytic muscle relaxants. Bradycardia can be antagonised by atropine.

Muscle rigidity
Muscular rigidity (morphine-like effect) may occur.
Rigidity, which may also involve the thoracic muscles, can be avoided by the following measures:
- slow IV injection (usually sufficient for lower doses);
- premedication with benzodiazepines;
- use of muscle relaxants.

Non-epileptic (myo)clonic movements can occur.

Precautions:

Fentanyl should be given only in an environment where the airway can be controlled and by personnel who can control the airway.

Special dosing conditions
The use of rapid bolus injections of opioids should be avoided in patients with compromised intracerebral compliance; in such patients the transient decrease in the mean arterial pressure has occasionally been accompanied by a transient reduction of the cerebral perfusion pressure.

It is recommended to reduce dosage in the elderly and debilitated patients.

In uncontrolled hypothyroidism, pulmonary disease, decreased respiratory reserve, alcoholism and hepatic or renal impairment the dosage should be titrated with care and prolonged post-operative monitoring is required.

Patients on chronic opioid therapy or with a history of opioid abuse may require higher doses.

Myasthenia gravis
In patients with myasthenia gravis, careful consideration should be applied in the use of certain anticholinergic agents and neuromuscular-blocking pharmaceutical agents prior to, and during, the administration of a general anaesthetic regimen which includes administering intravenous fentanyl.

Interaction with neuroleptics
If fentanyl is administered with a neuroleptic, the user should be familiar with the special properties of each drug, particularly the difference in duration of action. When such a combination is used, there is a higher incidence of hypotension. Neuroleptics can induce extrapyramidal symptoms that can be controlled with anti-Parkinson agents.

Bile duct
As with other opioids, due to the anticholinergic effects, administration of fentanyl may lead to increases of bile duct pressure and, in isolated cases, spasms of the Sphincter of Oddi might be observed
Labour
Administration of opioid analgesics during labour may cause respiratory depression in the perinatal child and may cause gastric stasis and increase the risk of inhalation pneumonia in the mother.

Risk from concomitant use of sedative medicines such as benzodiazepines or related drugs
Concomitant use of fentanyl and sedative medicines such as benzodiazepines or related drugs may result in sedation, respiratory depression, coma and death. Because of these risks, concomitant prescribing with these sedative medicines should be reserved for patients for whom alternative treatment options are not possible. If a decision is made to prescribe fentanyl concomitantly with sedative medicines, the lowest effective dose should be used, and the duration of treatment should be as short as possible.

The patients should be followed closely for signs and symptoms of respiratory depression and sedation. In this respect, it is strongly recommended to inform patients and their caregivers to be aware of these symptoms (see section 4.5).

Serotonin Syndrome
Caution is advised when fentanyl is coadministered with drugs that affect the serotonergic neurotransmitter systems. The development of a potentially life-threatening serotonin syndrome may occur with the concomitant use of serotonergic drugs such as Selective Serotonin Re-uptake Inhibitors (SSRIs) and Serotonin Norepinephrine Re-uptake Inhibitors (SNRIs), and with drugs which impair metabolism of serotonin (including Monoamine Oxidase Inhibitors [MAOIs]). This may occur within the recommended dose.
Serotonin syndrome may include mental-status changes (e.g., agitation, hallucinations, coma), autonomic instability (e.g., tachycardia, labile blood pressure, hyperthermia), neuromuscular abnormalities (e.g., hyperoreflexia, incoordination, rigidity), and/or gastrointestinal symptoms (e.g., nausea, vomiting, diarrhoea).
If serotonin syndrome is suspected, rapid discontinuation of fentanyl should be considered.

Paediatric population
Techniques that involve analgesia in a spontaneously breathing child should only be used as part of an anaesthetic technique, or given as part of a sedation / analgesia technique, with experienced personnel in an environment that can manage sudden chest wall rigidity requiring intubation, or apnoea requiring airway support.

This medicinal product contains 3.5mg sodium per 1ml, equivalent to 0.18% of the WHO recommended maximum daily intake of 2g sodium for an adult.

4.5 Interaction with other medicinal products and other forms of interaction

Effect of other drugs on fentanyl

Central Nervous System (CNS) depressants
The use of opioid premedication, barbiturates, benzodiazepines, neuroleptics, general anaesthetics, gabapentinoids (gabapentin and pregabalin), and other non-selective CNS depressants (e.g. alcohol) may enhance or prolong the respiratory depression of fentanyl.

Sedative medicines such as benzodiazepines or related drugs
The concomitant use of opioids with sedative medicines such as benzodiazepines or related drugs increases the risk of sedation, respiratory depression, coma and death because of additive CNS depressant effect. The dose and duration of concomitant use should be limited (see section 4.4).

Cytochrome P450 3A4 (CYP3A4) inhibitors
Fentanyl, a high clearance drug, is rapidly and extensively metabolised mainly by CYP3A4. When Fentanyl is used, the concomitant use of a CYP3A4 inhibitor may

result in a decrease in fentanyl clearance. With single-dose Fentanyl administration, the period of risk for respiratory depression may be prolonged, which may require special patient care and longer observation. With multiple-dose Fentanyl administration, the risk for acute and/or delayed respiratory depression may be increased, and a dose reduction of Fentanyl may be required to avoid accumulation of fentanyl. Oral ritonavir (a potent CYP3A4 inhibitor) reduced the clearance of a single intravenous Fentanyl dose by two thirds, although peak plasma concentrations of fentanyl were not affected. However, itraconazole (another potent CYP3A4 inhibitor) at 200 mg/day given orally for 4 days had no significant effect on the pharmacokinetics of a single intravenous Fentanyl dose. Co-administration of other potent or less potent CYP3A4 inhibitors, such as voriconazole or fluconazole, and Fentanyl may also result in an increased and/or prolonged exposure to fentanyl.

Bradycardia and possibly cardiac arrest can occur when fentanyl is combined with nonvagolytic muscle relaxants.

Serotonergic Drugs
Coadministration of fentanyl with a serotonergic agent, such as a Selective Serotonin Re-uptake Inhibitor (SSRI) or a Serotonin Norepinephrine Re-uptake Inhibitor (SNRI) or a Monoamine Oxidase Inhibitor (MAOI), may increase the risk of serotonin syndrome, a potentially life-threatening condition (see section 4.3 Contraindications).

Effect of fentanyl on other drugs
Following the administration of Fentanyl, the dose of other CNS depressant drugs should be reduced. This is particularly important after surgery, because profound analgesia is accompanied by marked respiratory depression, which can persist or recur in the postoperative period. Administration of a CNS depressant, such as a benzodiazepine, during this period may disproportionally increase the risk for respiratory depression.

Plasma concentrations of etomidate increased considerably (by a factor 2-3) when combined with fentanyl. The total plasma clearance and volume of distribution of etomidate is decreased by a factor of 2 to 3 without a change in half-life when administered with fentanyl.

Simultaneous administration of fentanyl and intravenous midazolam results in an increase in the terminal plasma half-life and a reduction in the plasma clearance of midazolam. When these drugs are co-administered with fentanyl their dose may need to be reduced.

Opioid agonists
buprenorphine may antagonise the analgesic effect of previously administered opioids and concomitant use is generally not recommended.

Histamine H2 antagonists
Cimetidine can reduce the metabolism of opioid analgesics resulting in increased plasma concentration.

Anti-emetics
The effects of metoclopramide or domperidone on gastro-intestinal activity is antagonised by opioid analgesics.

Effects on other drugs

The plasma levels of ciprofloxacin may be reduced in the presence of opiate premedicants. Plasma levels of mexiletine may also be reduced in the presence of opioid analgesics.

4.6 Fertility, pregnancy and lactation

Pregnancy
There are no adequate data from the use of fentanyl in pregnant women. Fentanyl can cross the placenta in early pregnancy. Studies in animals have shown some reproductive toxicity (see Section 5.3, Preclinical safety data). The potential risk for humans is unknown.

Administration during childbirth (including Caesarean section) is not recommended because fentanyl crosses the placenta and may suppress spontaneous respiration in the newborn period. If fentanyl is administered, assisted ventilation equipment must be immediately available for the mother and infant if required. An opioid antagonist for the child must always be available.
The mother is also at risk of gastric stasis and inhalation pneumonia if an opioid analgesic is administered during labour. Withdrawal symptoms may occur in neonates of dependent mothers.

Regular use during pregnancy may cause drug dependence in the foetus, leading to withdrawal symptoms in the neonate.

If opioid use is required for a prolonged period in a pregnant woman, advise the patient of the risk of neonatal opioid withdrawal syndrome and ensure that appropriate treatment will be available.

Administration during labour may depress respiration in the neonate and an antidote for the child should be readily available.

Breast-feeding
Administration to nursing women is not recommended as fentanyl may be secreted in breast milk and may cause respiratory depression in the infant.
Therefore breast-feeding or use of expressed
breast milk is not recommended within 24 hours of treatment. The risk/benefit of breast-feeding following fentanyl administration should be considered.

Fertility
There are no clinical data on the effects of fentanyl on male or female fertility.
In animal studies, some tests on rats showed reduced female fertility at
maternal toxic doses (see section 5.3 Preclinical safety data).

4.7 Effects on ability to drive and use machines

Where early discharge is envisaged, patients should be advised not to drive or operate machinery for 24 hours following administration.

This medicine can impair cognitive function and can affect a patient's ability to drive
safely. This class of medicine is in the list of drugs included in regulations under 5a of the Road Traffic Act 1988. When prescribing this medicine, patients should be told:

- The medicine is likely to affect your ability to drive
- Do not drive until you know how the medicine affects you
- It is an offence to drive while under the influence of this medicine
- However, you would not be committing an offence (called 'statutory defence') if:
  - The medicine has been prescribed to treat a medical or dental problem and
  - You have taken it according to the instructions given by the prescriber and in the information provided with the medicine and
  - It was not affecting your ability to drive safely.

4.8 Undesirable effects

The safety of Fentanyl IV was evaluated in 376 subjects who participated in 20 clinical trials evaluating Fentanyl IV as an anaesthetic. These subjects took at least 1 dose of Fentanyl IV and provided safety data. Based on pooled safety data from these clinical trials, the most commonly reported (≥5% incidence) Adverse Drug Reactions (ADRs) were (with % incidence): Nausea (26.1); Vomiting (18.6); Muscle Rigidity (10.4); Hypotension (8.8); Hypertension (8.8); Bradycardia (6.1); and Sedation (5.3).

Including the above-mentioned ADRs, the following table displays ADRs that have been reported with the use of Fentanyl IV from either clinical trials or post marketing experiences.

The displayed frequency categories use the following convention: Very common (≥1/10);
common (≥1/100 to <1/10); uncommon (≥1/1,000 to <1/100); and not known (cannot be estimated from the available clinical trial data).

System Organ Class	**Adverse Drug Reactions**			
	Frequency Category			
	Very Common	**Common**	**Uncommon**	**Not Known**
Immune System Disorders				Hypersensitivity (such as anaphylactic shock, anaphylactic reaction, Urticaria)

Psychiatric Disorders		Agitation	Euphoric Mood	Insomnia; Delirium; Drug dependence (see section 4.4)
Nervous System Disorders		Dyskinesia; Sedation; Dizziness	Headache	Convulsions; Loss of Consciousness; Myoclonus
Eye Disorders		Visual Disturbance		
Cardiac Disorders		Bradycardia; Tachycardia; Arrhythmia		Cardiac Arrest, Asystole
Vascular Disorders		Hypotension; Hypertension; Vein Pain	Phlebitis; Blood Pressure Fluctuation	
Respiratory, Thoracic and Mediastinal Disorders		Laryngospasm; Bronchospasm; Apnoea	HyperventilationHiccups	Respiratory Depression, Cough
Gastrointestinal Disorders	Nausea; Vomiting		Dysphagia	
Skin and Subcutaneous Tissue Disorders		Allergic dermatitis		Pruritus
Musculoskeletal and Connective Tissue Disorders	Muscle Rigidity (which may also involve the thoracic muscles)			
General Disorders and Administration Site Conditions			Chills; Hypothermia; Drug withdrawal syndrome	Drug withdrawal syndrome (see section 4.4)
Injury, Poisoning and Procedural Complications		Postoperative Confusion	Airway Complication of Anaesthesia; post operative agitation	
Renal and Urinary Disorders				

When a neuroleptic such as droperidol is used with fentanyl, the following adverse reactions may be observed: chills and/or shivering, restlessness, post-operative hallucinatory episodes and extrapyramidal symptoms.

Reporting of suspected adverse reactions
Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the Yellow Card Scheme at: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store.

4.9 Overdose

Patients should be informed of the signs and symptoms of overdose and to ensure that family and friends are also aware of these signs and to seek immediate medical help if they occur.

Symptoms and signs:
The manifestations of fentanyl overdosage are generally an extension of its pharmacological action. Depending on the individual sensitivity, the clinical picture is determined primarily by the degree of respiratory depression, which varies from bradypnoea to apnoea. Toxic leukoencephalopathy has also been observed with fentanyl overdose.

Treatment:

Hypoventilation or apnoea:	O2 administration, assisted or controlled respiration.
Respiratory depression:	Specific opioid antagonist. This does not preclude the use of immediate countermeasures. The respiratory depression may last longer than the effect of the antagonist; additional doses of the latter may therefore be required.
Muscular rigidity:	Intravenous neuromuscular blocking agent to facilitate assisted or controlled respiration.

The patient should be carefully observed; body warmth and adequate fluid intake should be maintained. If hypotension is severe or if it persists, the possibility of hypovolaemia should be considered and, if present, it should be controlled with appropriate parenteral fluid administration.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Anaesthetic general, opioid anaesthetic
ATC code: N01AH01

Fentanyl is a synthetic opiate with a clinical potency of 50 to 100 times that of morphine. Its onset of action is rapid and its duration of action is short. In man, a

single intravenous dose of 0.5-1 mg/70 kg body weight immediately produces a pronounced state of surgical analgesia, respiratory depression, bradycardia and other typical morphine-like effects. The duration of action of the peak effects is about 30 minutes. All potent morphine-like drugs produce relief from pain, ventilatory depression, emesis, constipation, physical dependence, certain vagal effects and varying degrees of sedation. Fentanyl, however, differs from morphine not only by its short duration of action but also by its lack of emetic effect and minimal release of histamine and hypotensive activity in animals.

5.2 Pharmacokinetic properties

Some pharmacokinetic parameters for fentanyl are as follows:

Urinary excretion = 8%
Bound in plasma = 80%
Clearance (ml/min/kg) = 13±2
Volume of distribution (litres/kg) = 4.0±0.4
Estimates of terminal half-life range from 141 to 853 minutes.

Fentanyl is rapidly absorbed following intramuscular injection, however, there are wide inter-individual variations.

Fentanyl is rapidly and extensively metabolised in the liver mainly by CYP3A4 enzymes. The metabolites are considered to be inactive.

Fentanyl crosses the placenta and is excreted in breast milk.

Renal impairment
Data obtained from a study administering IV fentanyl in patients undergoing renal transplantation suggest that the clearance of fentanyl may be reduced in this patient population. If patients with renal impairment receive fentanyl, they should be observed carefully for signs of fentanyl toxicity and the dose reduced if necessary (see section 4.2 Posology and method of administration).

Obese Patients
An increase in clearance of fentanyl is observed with increased body weight. In patients with a BMI >30, clearance of fentanyl increases by approximately 10% per 10 kg increase of the fat free mass (lean body mass).

5.3 Preclinical safety data

In vitro fentanyl showed, like other opioid analgesics, mutagenic effects in a mammalian cell culture assay, only at cytotoxic concentrations and along with metabolic activation. Fentanyl showed no evidence of mutagenicity when tested in in vivo rodent studies and bacterial assays. In a two-year rat bioassay, fentanyl was not carcinogenic.

Some tests on female rats showed reduced fertility as well as embryo mortality. These findings were related to maternal toxicity and not a direct effect of the drug on the developing embryo. There was no evidence of teratogenic effects.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Sodium chloride
Water for injections

6.2 Incompatibilities

The product is chemically incompatible with the induction agents thiopentone and methohexitone because of the wide differences in pH.

6.3 Shelf life

3 years

6.4 Special precautions for storage

Do not store above 25°C.
Keep the container in the outer carton.

6.5 Nature and contents of container

2ml and 10ml clear glass (Ph. Eur. Type I) ampoules containing 2ml or 10ml solution for injection.
Pack size: 10 ampoules per carton.

6.6 Special precautions for disposal

Fentanyl is controlled under the Misuse of Drugs Act 1971 (Schedule 2).

Wear gloves while opening ampoule.

Accidental dermal exposure should be treated by rinsing the affected area with water.
Avoid usage of soap, alcohol, and other cleaning materials that may cause chemical or physical abrasions to the skin.

7 MARKETING AUTHORISATION HOLDER

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