1.3.1	Summary of product characteristics

1 Summary of Product Characteristic (Product Data Sheet)

1.1 Name of the Medicinal Product

(a) Product Name: PENTAZOCINE INJECTION BP 30MG/ML

(b) Strength : 30mg/ml

(c) Pharmaceutical Dosage Form : Injection

1.2 Quality and Quantitative Composition

(a) Qualitative Declaration, the active substance should be declared by its recommended INN. Accompanied by its salt or hydrate form if relevant.

Each ml contains:

Pentazocine lactate

Eq. to Pentazocine BP……...30 mg.

Water for injection BP…….....q.s

(b) Quantitative Declaration, the quantity of the active substance must be expressed per dosage unit

Sr. No.	Name of the Materials	Specification	Label Claim	Qty/ml
1	Pentazocine BP	BP	30.000 mg	30.000 mg

1.3 Pharmaceutical Form Visual description of the appearance of the product (colour, markings, etc.) e.g: Clear and colorless solution filled 1ml Amber glass ampoule having white ring on neck with paper label and sealed.

1.4 Clinical Particulars

(a) Therapeutic indications:

Moderate to severe pain associated with surgery, trauma, burns, colics, cancer. Pre-anaesthetic medication. In labour.

(b) Posology and method of administration:

Adults: Injection: 30-60mg I.M. or 30mg I.V. May be repeated 3-4 hourly. Doses in excess of 30mg I.V. or 60mg S.C. or I.M. not recommended. Maximum daily dose: 360mg. In labour: 30mg I.M. or 20mg I.V. 2-3 hourly. Maximum dose: 2-3 doses.

Children : Not for children below 12 years.

(c) Contraindications:

• Hypersensitivity to the active substance.

• Pentazocine should not be administered to patients with established respiratory depression, especially in the presence of cyanosis and excessive bronchial secretion

• Acute alcoholism

• Head injuries or conditions in which the intracranial pressure is raised or pathological brain conditions where clouding of the sensorium is undesirable

• Acute bronchial asthma

• Heart failure, secondary to chronic lung disease

• Porphyria

(d) Special warning and precautions for use:

Pentazocine can both depress as well as elevate blood pressure possibly through the release of endogenous catecholamines. Particular caution should be observed therefore in using it in the presence of phaeochromocytoma, in the acute phase following myocardial infarction when it may increase pulmonary and systemic arterial pressure and vascular resistance, and in other clinical situations where alteration of vascular resistance and blood pressure might be particularly undesirable.

Caution should be observed in patients with severe renal or hepatic impairment and in elderly patients, who may additionally be especially sensitive to the effects of opioids, as both conditions may lead to an increase in bioavailability of pentazocine and call for a reduction in dosage.

Administer with caution to patients previously on large doses of narcotics.

Patients already receiving MAOIs need to be cautious before taking opioids. Some opioids can cause CNS excitation or depression. Opioids can be taken after two weeks of MAOIs discontinuation.

Caution should also be observed in patients who are prone to seizures and in the presence of other opioids or opioid-dependence since the weak opioid antagonistic effects of pentazocine may provoke withdrawal symptoms.

Caution should also be observed in patients with hypothyroidism, adrenocortical insufficiency, prostatic hypertrophy and in patients with inflammatory or obstructive bowel disorders.

After long term treatment (> 3 months) with analgesics with use every second day or more frequently, headache may develop or aggravate. Headache caused by overuse of analgesics (MOH-medication-overuse headache) should not be treated by increasing the dose. In such cases the use of analgesics should be discontinued in consultation with a doctor.

Risk from concomitant use of sedative medicines such as benzodiazepines or related drugs:

Concomitant use of Pentazocine 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 Pentazocine 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

(e) Interaction with other medicinal products and other forms of interactions:

Monoamine oxidase inhibitors may enhance the opioid effects of pentazocine and the agents may interact through their respective effects on catecholamine breakdown and release. Pentazocine should not be used within 14 days of stopping therapy with MAOIs.

Agents with sedative action including phenothiazines and ethyl alcohol can enhance the central depressant effects of pentazocine which are opposed by respiratory stimulants such as doxapram.

Tobacco smoking appears to enhance the metabolic clearance rate of pentazocine reducing the clinical effectiveness of a standard dose of pentazocine.

Pentazocine can antagonise the effects of stronger opioid agonists such as diamorphine and morphine and may provoke withdrawal symptoms if given to narcotic addicts. It is itself antagonised by naloxone.

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

(f) Pregnancy and lactation:

Pregnancy

There is no epidemiological evidence for the safety of pentazocine in human pregnancy but it has been widely used for many years without apparent ill consequences. Doses which produce maternal toxicity in rats have caused harmful effects in the foetus. Pentazocine can enter the foetal circulation and has the potential to cause opioid effects including central depression and abstinence syndrome in the foetus. It does not appear to have significant adverse effects on uterine function at parturition. Nonetheless, careful consideration should be given to the use of pentazocine during pregnancy, particularly during the first trimester, or at term.

Breast-feeding

There are insufficient data on the secretion of pentazocine in breast milk so it is recommended that infants of nursing mothers who are receiving high doses of pentazocine be appropriately monitored.

(g) Effects on ability to drive and use machine:

Pentazocine may produce sedation, so ambulant patients should be warned not to operate machinery or drive if affected. Alcohol may potentiate the sedative effect.

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

(h) Undesirable effects:

In chronic usage, care should be exercised to avoid any unnecessary increase in dosage since prolonged use of high dosage of pentazocine may produce dependence.

At therapeutic doses side-effects are generally of a minor nature. Sedation, the most common side effect, is less than that associated with morphine. The most frequent side effects are light-headedness, dizziness, nausea, vomiting and sweating. The following side effects have also been reported:

Blood and lymphatic system disorders: transient eosinophilia, agranulocytosis, depression of white blood cells.

Immune system disorders: oedema of the face, flushing of the skin including facial plethora, skin rashes, urticaria, dermatitis including pruritus, chills and allergic reactions.

Nervous system disorders: hallucinations may occur occasionally, dysphoria, headache, disorientation mood changes, nightmares, insomnia, paraesthesia, syncope, euphoria, grand mal convulsions, raised intracranial pressure, confusion, muscle tremor, thought disturbances.

Eye disorders: miosis, disturbances of vision.

Cardiac disorders: transient hypertension, tachycardia, bradycardia, hypotension, circulatory depression, palpitations.

Respiratory, thoracic and mediastinal disorders: respiratory depression.

Gastrointestinal disorders: dry mouth, constipation, biliary tract spasm.

Skin and subcutaneous system disorders: toxic epidermal necrolysis.

Renal and urinary disorders: urinary retention, ureteric tract spasm.

Pregnancy, puerperium and perinatal conditions: alterations in rate or strength uterine contractions during labour.

Reproductive system and breast disorders: decreased libido or potency.

General disorders and administration site conditions: hypothermia.

(i) Overdose:

The symptoms and clinical signs of pentazocine overdose will resemble those of morphine and other opioids. They may therefore include somnolence, respiratory depression hypotension, hypertension, tachycardia, hallucinations, or seizures. Circulatory failure and deepening coma may occur in more severe cases as may convulsions, particularly in patients who have also ingested other CNS depressants such as alcohol, sedatives/hypnotics or antihistamines. Adequate measures to maintain ventilation and general circulatory support should be employed and consideration given to gastric lavage and gastric aspiration.

For respiratory depression due to overdosage or unusual sensitivity to pentazocine, parenteral naloxone is a specific and effective antagonist. Initial doses of 0.4 to 0.2 mg of naloxone are recommended, repeated at 2-3 minute intervals if needed, up to a total of 10 mg. Anti-convulsant therapy may be necessary.

1.5 Pharmacological Properties

(a) Pharmacodynamic properties

Pharmacotherapeutic group: Analgesics, ATC code: NO2AD01

Pentazocine hydrochloride is an analgesic with actions and uses similar to those of morphine. Pentazocine has both agonist and antagonist action at opioid receptors. Pentazocine interrupts nociceptive input in the spinal cord. These analgesic effects are probably due to agonist actions at κ-receptors. Pentazocine is a weak antagonist at μ opioid receptors with about one fiftieth the potency of nalorphine.

Prolonged use of high doses of pentazocine may produce dependence. It is subject to abuse.

(b) Pharmacokinetic Properties:

Absorption

Pentazocine is absorbed from the gastro-intestinal tract.

Distribution

Following administration by mouth, peak plasma concentrations are reached in 1 to 3 hours. After intramuscular injection, peak plasma concentrations are reached in 15 minutes to 1 hour.

Pentazocine diffuses across the placenta.

Biotransformation

Pentazocine is metabolised in the liver.

Elimination

Only a small proportion of the dose administered appears unchanged in the urine.

(c) Preclinical safety data

There are no preclinical safety data of relevance to the prescriber which are additional to that already included in other sections of the SmPC.

1.6 Pharmaceutical Particulars

(a) List of excipients:

Lactic acid BP
Water for injections BP

(b) Incompatibilities:

None

(c) Shelf life: 36 Months

(d) Special precautions for storage: Store below 30^{o} C. Protect from light. Keep out of the reach of children.

(e) Nature and contents of container: Ampoules

1.7 Marketing Authorization Holder