1.3.1 Summary of Product Characteristics (SmPC)

1. Name of Medicinal Product

VENCHURA PENTAZOCINE INJECTION

PENTAZOCINE INJECTION BP 30 MG/ML

2. Qualitative and Quantitative Composition

2.1. Qualitative declaration:

Composition of the Drug product:

Each ml contains

Pentazocine BP 30 mg

Water for Injections BP Q.S.

Qualitative & Quantitative Composition Formula:

Batch size: 11 Liters (9821 Units)

Sr. No.	Name of raw material	Specification	Label claim	% Overages	Qty per ml with Overages (mg)	Quantity* / Batch Kg	Function
1.	Pentazocine	BP	30 mg	Nil	--	0.330	Opiate (narcotic) analgesics.
2.	Sodium Chloride	BP		--	--	0.0308	Tonicity agent
3.	Lactic acid	BP		--	--	121.00 ml	Acidifying agent
4.	Lactic acid	BP		--	--	QS	Acidifying agent
5.	Water for Injection	BP	---	Nil	Q.S.	Q.S.	Solvent

* The quantity of Pentazocine BP is given on the basis of 100 % assay (on as such basis).

3. Pharmaceutical form

Liquid Injection

A Clear, Colorless or almost colourless solution.

4. Clinical particulars

4.1 Therapeutic indications

Pentazocine is used to relieve moderate to severe pain. Pentazocine is in a class of medications called opiate (narcotic) analgesics. It works by changing the way the brain and nervous system respond to pain.

5.2 Posology and method of administration

Method of administration is IM/IV route only

Posology

Adults

Pentazocine Injections may be administered subcutaneously, intramuscularly or intravenously. The usual starting dose is 30mg to 60mg according to the severity. The dose should be adjusted according to response and repeated as necessary every three to four hours. A dose should not normally exceed 1mg/kg body weight SC or IM, or 0.5mg/kg iv.

The maximum daily dose is 360mg.

Children

In the case of patients between 1 year and 12 years, the maximum single dose of parenteral Pentazocine should be calculated on the basis of 1mg/kg body weight intravenously.

Pentazocine Injection is not recommended for use in children under one year.

Elderly

Since impaired renal or hepatic function is often associated with ageing, elderly patients may require smaller doses of Pentazocine.

4.3 Contraindications

Pentazocine Injection should not be administered to patients with established respiratory depression especially in the presence of cyanosis and excessive bronchial secretion and is also contraindicated in the presence of acute alcoholism, head injuries, conditions in which intracranial pressure is raised, acute bronchial asthma, in heart failure secondary to chronic lung disease, and in patients known to be hypersensitive to pentazocine or any excipient.

4.4 Special warnings and precautions for use

Dizziness; drowsiness; exaggerated sense of well-being; lightheadedness; nausea; redness, swelling, or irritation at injection site; vomiting. Severe allergic reactions (rash; hives; difficulty breathing; tightness in the chest; swelling of the mouth, face, lips, or tongue); blurred vision or other vision problems; confusion; fainting; hallucinations; seizures; trouble sleeping; trouble urinating; unusual weakness.

4.5 Interaction with other medicinal products and other forms of interaction

Monoamine oxidase inhibitors may enhance the opioid effects of pentazocine and the agents may interact through their respective effects on catecholamine breakdown and release. Agents with sedative action including phenothiazines, tricyclic antidepressants 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.

Pentazocine can antagonise the effects of stronger opioid agonists such as diamorphine (heroin), and morphine and is itself antagonised by naloxone. Because pentazocine has narcotic antagonist activity, it may provoke withdrawal symptoms if given to narcotic addicts, and it should be given with caution to patients recently being treated with large doses of narcotics.

4.6 Fertility, pregnancy and lactation

Pregnancy

Prolonged use of opioid analgesics during pregnancy may cause neonatal opioid withdrawal syndrome. Available data with pentazocine in pregnant women are insufficient to inform a drug-associated risk for major birth defects and miscarriage. In animal reproduction studies, pentazocine administered subcutaneously to pregnant hamsters during the early gestational period produced neural tube defects (i.e., exencephaly and cranioschisis) at 4.4 times the maximum daily dose. Based on animal data, advise pregnant women of the potential risk to a fetus. The estimated background risk of major birth defects and miscarriage for the indicated population is unknown. All pregnancies have a background risk of birth defect, loss, or other adverse outcomes. In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20%, respectively.

Clinical Considerations Fetal/Neonatal Adverse Reactions Prolonged use of opioid analgesics during pregnancy for medical or nonmedical purposes can result in physical dependence in the neonate and neonatal opioid withdrawal syndrome shortly after birth. Neonatal opioid withdrawal syndrome presents as irritability, hyperactivity and abnormal sleep pattern, high pitched cry, tremor, vomiting, diarrhea and failure to gain weight. The onset, duration, and severity of neonatal opioid withdrawal syndrome vary based on the specific opioid used, duration of use, timing and amount of last maternal use, and rate of elimination of the drug by the newborn. Observe newborns for symptoms of neonatal opioid withdrawal syndrome and manage accordingly

Labor or Delivery Opioids cross the placenta and may produce respiratory depression and psycho-physiologic effects in neonates. An opioid antagonist, such as naloxone, must be available for reversal of opioid-induced respiratory depression in the neonate. Pentazocine is not recommended for use in pregnant women during or immediately prior to labor, when other analgesic techniques are more appropriate. Opioid analgesics, including Pentazocine, can prolong labor through actions which temporarily reduce the strength, duration, and frequency of uterine contractions. However, this effect is not consistent and may be offset by an increased rate of cervical dilation, which tends to shorten labor. Monitor neonates exposed to opioid analgesics during labor for signs of excess sedation and respiratory depression. Patients receiving pentazocine during labor have experienced no adverse effects other than those that occur with commonly used analgesics

Lactation

Risk Summary The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for pentazocine and any potential adverse effects on the breastfed infant from the underlying maternal condition. Clinical Considerations Infants exposed to pentazocine through breast milk should be monitored for excess sedation and respiratory depression. Withdrawal symptoms can occur in breastfed infants when maternal administration of an opioid analgesic is stopped, or when breast-feeding is stopped.

4.7 Effects on ability to drive and use machines

As pentazocine may produce sedation, dizziness and occasionally euphoria, patients should be warned against the performance of potentially hazardous tasks such as driving a car or operating machinery; alcohol may potentiate the sedative effect. This medicine can impair cognitive function and can affect a patient's ability to drive safely. 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

• Slow or fast heartbeat
• Seizures
• Unusual weakness
• Confusion
• Hallucinations (seeing or hearing things that are not really there)
• Lightheadedness or fainting spells
• Nervousness or restlessness
• Constipation
• Decrease or difficulty passing urine
• Dry mouth
• Headache
• Itching

4.9 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, 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. Gastric lavage and gastric aspiration should be considered where appropriate.
For respiratory depression due to over dosage or unusual sensitivity to pentazocine, parenteral naloxone is a specific and effective antagonist. Initial doses of 0.4 to 2.0mg of naloxone are recommended, repeated at 2-3-minute intervals if needed, up to a total of 10mg. Anti-convulsant therapy may be necessary.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Opioid Analgesic

ATC code: N02AD01

Pentazocine relieves moderate to severe pain. Pentazocine is sometimes used to help control pain during labor. Pentazocine injection will be given as an injection into a muscle or through your vein by a trained health care provider.

Pentazocine is a mixed agonist-antagonist with low intrinsic activity at receptors of the μ-opioid type (morphine-like). It is also an agonist at k-opioid receptors.

Its interactions with these receptors in the central nervous system apparently mediate most of its pharmacologic effects, including analgesia. In addition to analgesia, CNS effects include depression of spontaneous respiratory activity and cough, stimulation of the emetic center, miosis and sedation. Effects possibly mediated by non- CNS mechanisms include alteration in cardiovascular resistance and capacitance, bronchomotor tone, gastrointestinal secretory and motor activity and bladder sphincter activity. In an animal model, the dose of pentazocine tartrate required to antagonize morphine analgesia by 50% was similar to that for nalorphine, less than that for pentazocine and more than that for naloxone. The pharmacological activity of pentazocine metabolites has not been studied in humans; in animal studies, pentazocine metabolites have demonstrated some analgesic activity.

In human studies of pentazocine, sedation is commonly noted at doses of 0.5 mg or more. Narcosis is produced by 10–12 mg doses of pentazocine administered over 10– 15 minutes intravenously. Pentazocine, like other mixed agonist-antagonists with a high affinity for the k-receptor, may produce unpleasant psychotomimetic effects in some individuals.

Nausea and/or vomiting may be produced by doses of 1 mg or more administered by any route. In human studies involving individuals without significant respiratory dysfunction, 2 mg of pentazocine IV and 10 mg of morphine sulfate IV depressed respiration to a comparable degree. At higher doses, the magnitude of respiratory depression with pentazocine is not appreciably increased; however, the duration of respiratory depression is longer. Respiratory depression noted after administration of pentazocine to humans by any route is reversed by treatment with

naloxone, a specific opioid antagonist. Pentazocine tartrate demonstrates antitussive effects in animals at doses less than those required for analgesia. Hemodynamic changes noted during cardiac catheterization in patients receiving single 0.025 mg/kg intravenous doses of pentazocine have included increases in pulmonary artery pressure, wedge pressure and vascular resistance, increases in left ventricular end diastolic pressure and in systemic arterial pressure.

5.2 Pharmacokinetic properties

Metabolism

Pentazocine is well-absorbed from the gastrointestinal tract. Peak plasma values occur between 1 and 3 hours after oral administration. Plasma half-life is 2 to 3 hours. Peak plasma values occur about 2.5 hours after rectal administration. Plasma half-life is 2 to 5 hours. Pentazocine is wellabsorbed following parenteral administration. Peak plasma values occur between 15 minutes and 1 hour after intramuscular administration. Plasma half-life is 2 to 5 hours

The volume of distribution is about 200 litres. Pentazocine crosses the placenta and appears in the cerebrospinal fluid in concentrations reaching 30 to 50% of those in plasma. It is taken up to some extent by the red blood cells. Fifty to 75% is protein bound.

Elimination:

Pentazocine is extensively metabolised in the liver. Up to 30% is excreted as glucuronide metabolites in the urine. Up to 13% of unchanged drug may also appear in the urine. Less than 2% of the dose is eliminated in the faeces unchanged in 48 hours.

Pentazocine is excreted in breast milk.

5.3 Preclinical safety data

Not available.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Sr. No.	Ingredients Name	Specification
1.	Sodium Chloride	BP
2.	Lactic acid	BP
3.	Water for Injection	BP

6.2 Incompatibilities:

Pentazocine Injection BP 30mg/ml should not be mixed with preparations containing bisulfite, metabisulfite, long-chain or high molecular anions or any solution having an alkaline pH.

6.3 Shelf-life: 24 Months

6.4 Special precautions for storage:

Store in a cool & dry place below 30°C, Protect from light.

6.5 Nature and contents of container:
PENTAZOCINE INJECTION BP 30 MG/ML:
1 ml ampoule packed in a carton along with leaflet.

6.6 Special precautions for disposal and other handling
Not Applicable

7-Marketing Authorization Holder:
VENCHURA PHARMACEUTICALS LIMITED.,
5, Mercy Eneli Street, Surulere,
Lagos, Nigeria.

8- Marketing Authorization Number (s):
Product license / registration Number (s)

9- Manufacturer Name:
FARBE FIRMA PVT. LTD.
Plot no.1508, GIDC Estate, Ankleshwar-393 002,
Dist-Bharuch, Gujarat, India.

10- Date of first authorization/renewal of the authorization:

11- Date of revision of the text:
