

## **Summary of product characteristics for Pharmaceutical Products**

### **1. Name of the medicinal product**

Pentixol 20(Flupentixol Injection Bp 20mg/ml)

### **2. Qualitative and quantitative composition**

Each ml contains Flupentixol Decanoate BP 20mg Medium-chain Triglycerides.

For full list of excipients, see section 6.1

### **3. Pharmaceutical form**

A Clear, slightly yellowish oily liquid Solution for injection

### **4. Clinical particulars**

#### **4.1. Therapeutic indications**

The treatment of schizophrenia and other psychoses.

#### **4.2 Posology and method of administration**

##### Posology

##### Adults

The usual dosage of flupentixol lies between 50 mg every 4 weeks and 300 mg every 2 weeks, but some patients may require up to 400 mg weekly. The maximum single dose at any one time is 400 mg. For example, 800 mg over 2 weeks should not be given. Other patients may be adequately maintained on dosages of 20-40 mg flupentixol every 2-4 weeks. In patients who have not previously received depot antipsychotic, treatment is usually started with a small dose (e.g. 20 mg) to assess tolerability. An interval of at least one week should be allowed before the second injection is given at a dose consistent with the patients' condition.

Depixol Injection 20 mg/ml is not intended for use in patients requiring doses of greater than 60 mg (3 ml) of flupentixol. Injection volumes of 2 – 3 ml should be distributed between two injection sites.

More concentrated solutions of flupentixoldecanoate (DepixolConc Injection or Depixol Low Volume Injection) should be used if doses greater than 3 ml (60 mg) are required.

The injection volumes selected for DepixolConc Injection or Depixol Low Volume Injection should not exceed 2 ml.

Adequate control of severe psychotic symptoms may take up to 4 to 6 months at high enough dosage. Once stabilised lower maintenance doses may be considered, but must be sufficient to prevent relapse.

##### Older patients

In accordance with standard medical practice, initial dosage may need to be reduced to a quarter or half the normal starting dose in the frail or older patients.

##### Children

Depixol is not recommended for use in children due to lack of clinical experience.

Patients with reduced renal function

Flupentixol has not been studied in renal impairment. Increased cerebral sensitivity to antipsychotics has been noted in severe renal impairment (see section 4.4).

Patients with reduced hepatic function

Flupentixol has not been studied in hepatic impairment. It is extensively metabolized by the liver and particular caution should be used in this situation and serum level monitoring is advised (see section 4.4). Depixol should be initiated at low doses orally to check for tolerability before switching to the depot formulation.

Method of administration

Route of administration: For Deep intramuscular injection only

### **4.3 Contraindications**

Hypersensitivity to the active substance or to any of the excipients. Circulatory collapse, depressed level of consciousness due to any cause (e.g. intoxication with alcohol, barbiturates or opiates), coma. Not recommended for excitable or agitated patients.

### **4.4 Special warnings and precautions for use**

Caution should be exercised in patients having: liver disease; cardiac disease or arrhythmias; severe respiratory disease; renal failure; epilepsy (and conditions predisposing to epilepsy e.g. alcohol withdrawal or brain damage); Parkinson's disease; narrow angle glaucoma; prostatic hypertrophy; hypothyroidism; hyperthyroidism; myasthenia gravis; phaeochromocytoma and patients who have shown hypersensitivity to thioxanthenes or other antipsychotics.

The possibility of development of neuroleptic malignant syndrome (hyperthermia, muscle rigidity, fluctuating consciousness, instability of the autonomous nervous system) exists with any neuroleptic. The risk is possibly greater with the more potent agents. Patients with pre-existing organic brain syndrome, mental retardation, and opiate and alcohol abuse are overrepresented among fatal cases.

Treatment: Discontinuation of the neuroleptic. Symptomatic treatment and use of general supportive measures. Dantrolene and bromocriptine may be helpful.

Symptoms may persist for more than a week after oral neuroleptics are discontinued and somewhat longer when associated with the depot forms of the drugs.

Blood dyscrasias, including thrombocytopenia, have been reported rarely. Blood counts should be carried out if a patient develops signs of persistent infection.

As described for other psychotropics flupentixol may modify insulin and glucose responses calling for adjustment of the antidiabetic therapy in diabetic patients.

Acute withdrawal symptoms, including nausea, vomiting, sweating and insomnia have been described after abrupt cessation of antipsychotic drugs. Recurrence of psychotic symptoms may also occur, and the emergence of involuntary movement disorders (such as akathisia, dystonia and dyskinesia) has been reported. The plasma concentrations of the

Depixol Injection and Conc. Injection gradually decrease over several weeks which makes gradual dosage tapering unnecessary.

When transferring patients from oral to depot antipsychotic treatment, the oral medication should not be discontinued immediately, but gradually withdrawn over a period of several days after administering the first injection.

As with other drugs belonging to the therapeutic class of antipsychotics, flupentixol may cause QT prolongation. Persistently prolonged QT intervals may increase the risk of malignant arrhythmias. Therefore, flupentixol should be used with caution in susceptible individuals (with hypokalaemia, hypomagnesaemia or genetic predisposition) and in patients with a history of cardiovascular disorders, e.g. QT prolongation, significant bradycardia (<50 beats per minute), a recent acute myocardial infarction, uncompensated heart failure, or cardiac arrhythmia.

Cases of venous thromboembolism (VTE) have been reported with antipsychotic drugs. Since patients treated with antipsychotics often present with acquired risk factors for VTE, all possible risk factors for VTE should be identified before and during treatment with Depixol and preventive measures undertaken.

Concomitant treatment with other antipsychotics should be avoided (see section 4.5).

Leukopenia, neutropenia and agranulocytosis have been reported with antipsychotics, including flupentixol.

Long-acting depot antipsychotics should be used with caution in combination with other medicines known to have a myelosuppressive potential, as these cannot rapidly be removed from the body in conditions where this may be required.

**Suicide/suicidal thoughts or clinical worsening**

Depression is associated with an increased risk of suicidal thoughts, self harm and suicide (suicide-related events). This risk persists until significant remission occurs. As improvement may not occur during the first few weeks or more of treatment, patients should be closely monitored until such improvement occurs.

It is general clinical experience that the risk of suicide may increase in the early stages of recovery. Other psychiatric conditions for which flupentixol is prescribed can also be associated with an increased risk of suicide-related events. In addition, these conditions may be co-morbid with major depressive disorder. The same precautions observed when treating patients with major depressive disorder should therefore be observed when treating patients with other psychiatric disorders. Patients with a history of suicide-related events, or those exhibiting a significant degree of suicidal ideation prior to commencement of treatment are known to be at greater risk of suicidal thoughts or suicide attempts, and should receive careful monitoring during treatment. A meta-analysis of placebo-controlled clinical trials of antidepressant drugs in adult patients with psychiatric disorders showed an increased risk of suicidal behaviour with antidepressants compared to placebo in patients less than 25 years old.

Close supervision of patients and in particular those at high risk should accompany drug therapy especially in early treatment and following dose

changes. Patients (and caregivers of patients) should be alerted about the need to monitor for any clinical worsening, suicidal behaviour or thoughts and unusual changes in behaviour and to seek medical advice immediately if these symptoms present.

#### Older people

The elderly require close supervision because they are specially prone to experience such adverse effects as sedation, hypotension, confusion and temperature changes.

#### Cerebrovascular

An approximately 3-fold increased risk of cerebrovascular adverse events have been seen in randomised placebo controlled clinical trials in the dementia population with some atypical antipsychotics. The mechanism for this increased risk is not known. An increased risk cannot be excluded for other antipsychotics or other patient populations. Flupentixol should be used with caution in patients with risk factors for stroke. Increased Mortality in Older people with Dementia

Data from two large observational studies showed that older people with dementia who are treated with antipsychotics are at a small increased risk of death compared with those who are not treated. There are insufficient data to give a firm estimate of the precise magnitude of the risk and the cause of the increased risk is not known.

Depixol is not licensed for the treatment of dementia-related behavioural disturbances.

#### 4.5 Interaction with other medicinal products and other forms of interaction

In common with other antipsychotics, flupentixol enhances the response to alcohol the effects of barbiturates and other CNS depressants. Flupentixol may potentiate the effects of general anaesthetics and anticoagulants and prolong the action of neuromuscular blocking agents. The anticholinergic effects of atropine or other drugs with anticholinergic properties may be increased. Concomitant use of drugs such as metoclopramide, piperazine or antiparkinson drugs may increase the risk of extrapyramidal effects such as tardive dyskinesia. Combined use of antipsychotics and lithium or sibutramine has been associated with an increased risk of neurotoxicity.

Antipsychotics may enhance the cardiac depressant effects of quinidine; the absorption of corticosteroids and digoxin. The hypotensive effect of vasodilator antihypertensive agents such as hydralazine and  $\alpha$ -blockers (e.g. doxazosin), or methyl-dopa may be enhanced.

Increases in the QT interval related to antipsychotic treatment may be exacerbated by the co-administration of other drugs known to significantly increase the QT interval.

Co-administration of such drugs should be avoided. Relevant classes include:

class Ia and III antiarrhythmics (e.g. quinidine, amiodarone, sotalol, dofetilide)

some antipsychotics (e.g. thioridazine)

some macrolides (e.g. erythromycin)

some antihistamines

some quinolone antibiotics (e.g. moxifloxacin)

The above list is not exhaustive and other individual drugs known to significantly increase QT interval (e.g. cisapride, lithium) should be avoided.

Drugs known to cause electrolyte disturbances such as thiazide diuretics (hypokalaemia) and drugs known to increase the plasma concentration of flupentixol should also be used with caution as they may increase the risk of QT prolongation and malignant arrhythmias.

Antipsychotics may antagonise the effects of adrenaline and other sympathomimetic agents, and reverse the antihypertensive effects of guanethidine and similar adrenergic-blocking agents. Antipsychotics may also impair the effect of levodopa, adrenergic drugs and anticonvulsants.

The metabolism of tricyclic antidepressants may be inhibited and the control of diabetes may be impaired.

#### 4.5 Interaction with other medicinal products and other forms of interaction

In common with other antipsychotics, flupentixol enhances the response to alcohol the effects of barbiturates and other CNS depressants. Flupentixol may potentiate the effects of general anaesthetics and anticoagulants and prolong the action of neuromuscular blocking agents. The anticholinergic effects of atropine or other drugs with anticholinergic properties may be increased. Concomitant use of drugs such as metoclopramide, piperazine or antiparkinson drugs may increase the risk of extrapyramidal effects such as tardive dyskinesia. Combined use of antipsychotics and lithium or sibutramine has been associated with an increased risk of neurotoxicity.

Antipsychotics may enhance the cardiac depressant effects of quinidine; the absorption of corticosteroids and digoxin. The hypotensive effect of vasodilator antihypertensive agents such as hydralazine and  $\alpha$ -blockers (e.g. doxazosin), or methyl-dopa may be enhanced.

Increases in the QT interval related to antipsychotic treatment may be exacerbated by the co-administration of other drugs known to significantly increase the QT interval.

Co-administration of such drugs should be avoided. Relevant classes include:

class Ia and III antiarrhythmics (e.g. quinidine, amiodarone, sotalol, dofetilide)

some antipsychotics (e.g. thioridazine)

some macrolides (e.g. erythromycin)

some antihistamines

some quinolone antibiotics (e.g. moxifloxacin)

The above list is not exhaustive and other individual drugs known to significantly increase QT interval (e.g. cisapride, lithium) should be avoided.

Drugs known to cause electrolyte disturbances such as thiazide diuretics (hypokalaemia) and drugs known to increase the plasma concentration of flupentixol should also be used with caution as they may increase the risk of QT prolongation and malignant arrhythmias (see section 4.4).

Antipsychotics may antagonise the effects of adrenaline and other sympathomimetic agents, and reverse the antihypertensive effects of guanethidine and similar adrenergic-blocking agents. Antipsychotics may also impair the effect of levodopa, adrenergic drugs and anticonvulsants. The metabolism of tricyclic antidepressants may be inhibited and the control of diabetes may be impaired.

#### **4.6 Fertility, pregnancy and lactation**

##### **Pregnancy**

As the safety of this drug during pregnancy has not been established, use during pregnancy, especially the first and last trimesters, should be avoided, unless the expected benefit to the patient outweighs the potential risk to the foetus.

Neonates exposed to antipsychotics (including Depixol) during the third trimester of pregnancy are at risk of adverse reactions including extrapyramidal and/or withdrawal symptoms that may vary in severity and duration following delivery. There have been reports of agitation, hypertonia, hypotonia, tremor, somnolence, respiratory distress, or feeding disorder. Consequently, newborns should be monitored carefully.

Animal studies have shown reproductive toxicity (see section 5.3).

##### **Breast-feeding**

Flupentixol is excreted into the breast milk. If the use of Depixol is considered essential, nursing mothers should be advised to stop breast-feeding.

#### **4.7 Effects on ability to drive and use machines**

Alertness may be impaired, especially at the start of treatment, or following the consumption of alcohol; patients should be warned of this risk and advised not to drive or operate machinery until their susceptibility is known. Patients should not drive if they have blurred vision.

#### **4.8 Undesirable effects**

Increased appetite, weight increased.

Insomnia, depression, nervousness, agitation, libido decreased.

Somnolence, akathisia, hyperkinesia, hypokinesia.

Tremor, dystonia, dizziness, headache, disturbance in attention.

Accommodation disorder, vision abnormal.

Tachycardia, palpitations.

Dyspnoea.

Dry mouth.

Salivary hypersecretion, constipation, vomiting, dyspepsia, diarrhoea.

Hyperhidrosis, pruritus.

Myalgia.

Micturition disorder, urinary retention.

Asthenia, fatigue.

##### **Reporting of suspected adverse reactions**

Reporting of suspected adverse reactions: Healthcare professionals are asked to report any suspected adverse reactions via pharmacy and poisons

board, Pharmacovigilance Electronic Reporting System (PvERS)  
<https://pv.pharmacyboardkenya.org>.

#### **4.9 Overdose**

Overdosage may cause somnolence or even coma, extrapyramidal symptoms, convulsions, hypotension, shock, hyper or hypothermia. ECG changes, QT prolongation, Torsade de Pointes, cardiac arrest and ventricular arrhythmias have been reported when administered in overdose together with drugs known to affect the heart.

Treatment is symptomatic and supportive, with measures aimed at supporting the respiratory and cardiovascular systems. The following specific measures may be employed if required.

Anticholinergic antiparkinson drugs if extrapyramidal symptoms occur

Sedation (with benzodiazepines) in the unlikely event of agitation or excitement or convulsions

Noradrenaline in saline intravenous drip if the patient is in shock.

Adrenaline must not be given.

### **5. Pharmacological properties**

#### **5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: Neuroleptics (antipsychotics), ATC code: N05AF01

Mechanism of action

Flupentixol is a non-sedating antipsychotic drug of the thioxanthene group. Its primary pharmacological action is dopamine blockade. Flupentixol has a high affinity for D1 and D2 receptors. Depixol Injection contains the deconoic ester of flupentixol in thin vegetable oil.

#### **5.2 Pharmacokinetic properties**

After intramuscular injection, the ester is slowly released from the oil depot and is rapidly hydrolyzed to release flupentixol. Flupentixol is widely distributed in the body and extensively metabolized in the liver. Peak circulating levels occur around 7 days after administration.

#### **5.3 Preclinical safety data**

In fertility studies in rats, flupentixol slightly affected the pregnancy rate of female rats. Animal reproduction studies in mice, rats and rabbits have not shown evidence of teratogenic effects. Embryotoxic effects in terms of increased post implantation loss/increased absorption rates or occasional abortions were seen in rats and rabbits at doses associated with maternal toxicity.

### **6. Pharmaceutical particulars**

#### **6.1 List of excipients**

Medium-chain Triglycerides

#### **6.2 Incompatibilities**

Not applicable

**6.3 Shelf life**

2 years.

**6.4 Special precautions for storage**

Store below 30°C. Keep the ampoules in the outer carton in order to protect from light.

**6.5 Nature and contents of container**

1 ml ampoule placed in tray such one tray packed in carton with an insert.

**6.6 Special precautions for disposal and other handling**

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

**7. Marketing Authorization Holder:**

Krishna Chemists Ltd  
P.O Box 3328 – 00506  
Nairobi Kenya

**Manufactured in India by:**

Armein Pharmaceuticals Pvt. Ltd  
Survey # 494, Khambhat - Petlad Road,  
Bamanva- 388580, Ta Khambhat,  
Dist- Anand, Gujarat, India

**8. Marketing authorization number**

CTD10790

**9. Date of first registration**

09/02/2024

**10. Date of revision of the text:**

11/2024