PARACETAMOL 120MG/5ML ORAL SUSPENSION
PL 20941/0001 and 3

UKPAR

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PARACETAMOL 120MG/5ML ORAL SUSPENSION
PL 20941/0001 and 3

LAY SUMMARY

On 3rd March 2009, the MHRA granted Edict Consulting Limited Marketing Authorisations (licences) for Paracetamol 120mg/5ml Oral Suspension (PL 20941/0001 and 0003). PL 20941/0003 can also be called Tesco Paracetamol 120mg/5ml Oral Suspension. This medicine is used to treat mild to moderate pain including teeth pain. Paracetamol belongs to a group of medicines called analgesics that help ease pain.

No new or unexpected safety concerns arose from these applications and it was, therefore, judged that the benefits of taking Paracetamol 120mg/5ml Oral Suspension outweigh the risks; hence Marketing Authorisations have been granted.
PARACETAMOL 120MG/5ML ORAL SUSPENSION
PL 20941/0001 and 3

SCIENTIFIC DISCUSSION

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INTRODUCTION

Based on the review of the data on quality, safety and efficacy, the UK granted marketing authorisations for the medicinal product Paracetamol 120mg/5ml Oral Suspension (PL 20941/0001 and 3) to Edict Consulting Limited on 3rd March 2009. PL 20941/0003 can also be called Tesco Paracetamol 120mg/5ml Oral Suspension. This product has a general sales licence and is not subject to medical prescription. This product is indicated for the treatment of mild to moderate pain (including teething pain, and as an antipyretic (including post immunisation fever).

This application for Paracetamol 120mg/5ml Oral Suspension is submitted as an abridged bibliographic application according to Article 10.a of Directive 2001/83/EC

The product contains the active substance paracetamol, which has analgesic and antipyretic effects similar to those of aspirin and is useful in the treatment of mild to moderate pain. It has weak anti-inflammatory effects.
PHARMACEUTICAL ASSESSMENT

DRUG SUBSTANCE
Fluvastatin Sodium
INN: Paracetamol
Chemical name: Acetaminophen, N-Acetyl-p-aminophenol, Paracetamolum, 4’-hydroxyacetanilide, N-(4-hydroxyphenyl)acetanilide

Structure:

Physical form: A white crystalline powder
Solubility: Sparsely soluble in water, freely soluble in alcohol and very slightly soluble in methylene chloride.
Solubility in water increases as the pH increases
Molecular formula: C₈H₉NO₂
Molecular weight: 151.2

An appropriate specification based on the European Pharmacopoeia has been provided.

All aspects of the manufacture of the active substance paracetamol from its starting materials are controlled by a Certificate of Suitability.

Satisfactory specifications and certificates of analysis have been provided all aspects of the container-closure system. A declaration has been provided that the primary packaging complies with current regulations concerning contact with foodstuff.

An appropriate retest period has been proposed based on stability data submitted for the active substance paracetamol

DRUG PRODUCT
Other ingredients
Other ingredients consist of excipients glycerol, polysorbate 80, xanthan gum, maltitol liquid, sodium saccharin, citric acid monohydrate, sodium methyl hydroxybenzoate, sodium propyl hydroxybenzoate, strawberry flavour and water purified. All excipients with the exception of strawberry flavour comply with their relevant European Pharmacopoeia monographs. Strawberry flavour complies with in-house specifications.

None of the excipients used contain material of animal or human origin.

Product development
The applicant has provided a suitable product development section. Justifications for the use and amounts of each excipient have been provided and are valid.

Manufacture
A description and flow-chart of the manufacturing method has been provided.
In-process controls are satisfactory based on process validation data and controls on the finished product. Process validation has been carried out on batches of finished product and the results appear satisfactory. The applicant has committed to perform process validation on future production-scale batches.

**Finished product specification**
The finished product specification is satisfactory. Test methods have been described and have been adequately validated, as appropriate. Batch data have been provided and comply with the release specification. Certificates of analysis for all working standards used have been provided and are satisfactory.

**Container-Closure System**
The product is packaged in Type III glass bottles with Child Resistant tamper evident high density polypropylene caps with a polyethylene lining. A Polypropylene double ended spoon is provided.

Specifications and certificates of analysis for the packaging types used have been provided. All primary product packaging complies with EU legislation regarding contact with food. The product is packaged in sizes of 100ml and 200ml for PL 20941/0001 and 100ml for PL 20941/0003.

**Stability**
Finished product stability studies have been conducted in accordance with current guidelines. Based on the results, a shelf-life of two years for an unopened product and two months for an opened product has been set. This product has the storage conditions “Do not store above 25°C” and ‘Store the container in the outer carton. Discard after 2 months of first opening.’ which is satisfactory.

**ADMINISTRATIVE**

**Expert Report**
A pharmaceutical expert report has been written by a suitably qualified person and is satisfactory.

**Summary of Product Characteristics (SPC)**
These are pharmaceutically satisfactory.

**Labelling**
These are pharmaceutically satisfactory.

**Patient Information Leaflet (PIL)**
This is pharmaceutically satisfactory.

A package leaflet has been submitted to the MHRA along with results of consultations with target patient groups ("user testing"), in accordance with Article 59 of Council Directive 2001/83/EC, as amended. The results indicate that the package leaflet is well-structured and organised, easy to understand and written in a comprehensive manner. The test shows that the patients/users are able to act upon the information that it contains.
MAA Form
These are pharmaceutically satisfactory.

Conclusion
It is recommended that Marketing Authorisations are granted for these applications.
PRECLINICAL ASSESSMENT

These applications for Paracetamol 120mg/5ml Oral Suspension are submitted as abridged bibliographic applications according to Article 10.a of Directive 2001/83/EC.

No new preclinical data have been supplied with these applications and none are required for applications of this type.
UKPAR Paracetamol 120mg/5ml Oral Suspension

CLINICAL ASSESSMENT

CLINICAL PHARMACOLOGY
No bioequivalence studies have been performed and none are required for this application, as this is a bibliographic application and the active substance paracetamol, is a well-known, widely used substance.

EFFICACY
No new data has been provided.

SAFETY
No new data has been provided.

EXPERT REPORTS
The clinical expert report has been written by a suitably qualified person and is satisfactory.

PATIENT INFORMATION LEAFLET (PIL)
This is consistent with that for the reference product and is satisfactory.

LABELLING
These are satisfactory.

APPLICATION FORMS (MAA)
These are satisfactory.

SUMMARY OF PRODUCT CHARACTERISTICS (SPC)
These are consistent with those for the reference products and are satisfactory.

DISCUSSION
The applicant has satisfactorily demonstrated bioequivalence between the test and reference products.

MEDICAL CONCLUSION
The grant of marketing authorisations is recommended for these applications.
OVERALL CONCLUSION AND RISK BENEFIT ASSESSMENT

QUALITY
The important quality characteristics of Paracetamol 120mg/5ml Oral Suspension are well-defined and controlled. The specifications and batch analytical results indicate consistency from batch to batch. There are no outstanding quality issues that would have a negative impact on the benefit/risk balance.

PRECLINICAL
No new preclinical data were submitted and none are required for applications of this type.

EFFICACY
Paracetamol is a well-known drug and has been used as an analgesic for many years. No new or unexpected safety concerns arise from these applications.

The SPC, PIL and labelling are satisfactory.

RISK BENEFIT ASSESSMENT
The quality of the products is acceptable and no new preclinical or clinical safety concerns have been identified. The bioequivalence study supports the claim that the applicant’s products and the reference products are interchangeable. Extensive clinical experience with paracetamol is considered to have demonstrated the therapeutic value of the compound. The benefit/risk is, therefore, considered to be positive.
PARACETAMOL 120MG/5ML ORAL SUSPENSION  
PL 20941/0001 and 3

**STEPS TAKEN FOR ASSESSMENT**

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<tr>
<td>1</td>
<td>The MHRA received the marketing authorisation applications on 30(^{th}) June 2004 and 6(^{th}) January 2007.</td>
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<td>2</td>
<td>Following standard checks and communication with the applicant the MHRA considered the applications valid on 28(^{th}) September 2004 and 28(^{th}) February 2007.</td>
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<td>3</td>
<td>Following assessment of the application, the MHRA requested further information relating to the quality dossier on 27(^{th}) January 2005, 6(^{th}) May 2008, 12(^{th}) September 2008 and 30(^{th}) October 2008. The MHRA requested further information relating to the clinical dossier on 27(^{th}) January 2005. Following assessment of the other application, the MHRA requested further information relating to the quality dossier on 5(^{th}) September 2007, 12(^{th}) September 2008 and 30(^{th}) October 2008. The MHRA requested further information relating to the clinical dossier on 5(^{th}) September 2007.</td>
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<td>4</td>
<td>The applicant responded to the MHRA’s requests, providing further information on 25(^{th}) April 2005, 3(^{rd}) June 2008, 18(^{th}) September 2008 and 19(^{th}) November 2008 for the quality section. The applicant responded to the MHRA’s requests, providing further information on 25(^{th}) April 2005 for the clinical section. The applicant responded to the MHRA’s requests, providing further information on 8(^{th}) October 2007, 18(^{th}) September 2008 and 14(^{th}) November 2008 for the quality section. The applicant responded to the MHRA’s requests, providing further information on 8(^{th}) October 2007 for the clinical section.</td>
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<td>5</td>
<td>The applications were determined on 3(^{rd}) March 2009.</td>
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PARACETAMOL 120MG/5ML ORAL SUSPENSION
PL 20941/0001 and 3

STEPS TAKEN AFTER AUTHORISATION - SUMMARY

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<thead>
<tr>
<th>Date submitted</th>
<th>Application type</th>
<th>Scope</th>
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SUMMARY OF PRODUCT CHARACTERISTICS

1 NAME OF THE MEDICINAL PRODUCT
Paracetamol 120mg/5ml Oral Suspension

2 QUALITATIVE AND QUANTITATIVE COMPOSITION
Each 5ml of the oral suspension contains Paracetamol 120mg
For full list of excipients- see section 6.1

3 PHARMACEUTICAL FORM
Oral Suspension
White uniform suspension with an aroma of strawberries

4 CLINICAL PARTICULARS
4.1 THERAPEUTIC INDICATIONS
Paracetamol 120mg/5ml Oral Suspension is indicated for the treatment of mild to moderate pain (including teething pain), and as an antipyretic (including post immunisation fever).

4.2 POSOLOGY AND METHOD OF ADMINISTRATION
For oral administration

Children aged 1 to under 6 years:
5 to 10 ml (120 mg to 240 mg paracetamol).
Repeat every 4 hours, if necessary, up to a maximum of 4 doses per 24 hours.

Infants 3 months to under 1 year:
2.5 to 5 ml (60 mg to120 mg paracetamol). Repeat every 4 hours, if necessary, up to a maximum of 4 doses per 24 hours.

Infants aged 2-3 months:
A 2.5 ml (60 mg) dose is suitable for babies who develop post-vaccination fever at 2 months followed, if necessary, by a second dose 4 to 6 hours later. In other cases, or if the fever persists, use under medical supervision only.

The Elderly:
In the elderly, the rate and extent of paracetamol absorption is normal but plasma half-life is longer and paracetamol clearance is lower than in young adults.

4.3 CONTRAINDICATIONS
Paracetamol Oral Suspension is contra-indicated in patients with known hypersensitivity to paracetamol, or any of the other constituents.

4.4 SPECIAL WARNINGS AND PRECAUTIONS FOR USE
Care is advised in the administration of paracetamol to patients with severe renal or severe hepatic impairment. The hazards of overdose are greater in those with non-cirrhotic alcoholic liver disease.

Do not exceed the recommended dose.
If symptoms persist consult your doctor.
Keep out of the reach and sight of children.

Patients with rare hereditary problems of fructose intolerance should not take this medicine. This product contains sodium methyl parahydroxybenzoate (E219) and sodium propyl parahydroxybenzoate (E217). These may cause allergic reactions (possibly delayed)
4.5 INTERACTION WITH OTHER MEDICINAL PRODUCTS AND OTHER FORMS OF INTERACTION

The speed of absorption of paracetamol may be increased by metoclopramide or domperidone and absorption reduced by cholestyramine.

The anticoagulant effect of warfarin and other coumarins may be enhanced by prolonged regular use of paracetamol with increased risk of bleeding; occasional doses have no significant effect.

Patients who have taken barbiturates, tricyclic antidepressants and alcohol may show diminished ability to metabolise large doses of paracetamol, the plasma half-life of which can be prolonged.

Alcohol can increase the hepatotoxicity of paracetamol overdosage and may have contributed to the acute pancreatitis reported in one patient who had taken an overdose of paracetamol.

Chronic ingestion of anticonvulsants or oral steroid contraceptives induce liver enzymes and may prevent attainment of therapeutic paracetamol levels by increasing first pass metabolism or clearance.

4.6 PREGNANCY AND LACTATION

Pregnancy
Epidemiological studies in human pregnancy have shown no ill effects due to paracetamol used in the recommended dosage, but patients should follow the advice of the doctor regarding its use.

Lactation
Paracetamol is excreted in breast milk but not in a clinically significant amount. Available published data do not contraindicate breast feeding.

4.7 EFFECTS ON ABILITY TO DRIVE AND USE MACHINES
No adverse effects known.

4.8 UNDESIRABLE EFFECTS
Adverse effects of paracetamol are rare but hypersensitivity including skin rash may occur. There have been reports of blood dyscrasias including thrombocytopenia and agranulocytosis, but these were not necessarily causality related to paracetamol.

Most reports of adverse reactions to paracetamol relate to overdosage with the drug.

Chronic hepatic necrosis has been reported in a patient who took daily therapeutic doses of paracetamol for about a year and liver damage has been reported after daily ingestion of excessive amounts for shorter periods. A review of a group of patients with chronic active hepatitis failed to reveal differences in the abnormalities of liver function in those who were long-term users of paracetamol nor was the control of the disease improved after paracetamol withdrawal.

Nephrotoxic effects following therapeutic doses of paracetamol are uncommon. Papillary necrosis has been reported after prolonged administration.

4.9 OVERDOSE
Liver damage is possible in adults who have taken 10g or more of paracetamol. Ingestion of 5g or more of paracetamol may lead to liver damage if the patient has risk factors (see below).

Risk Factors:
If the patient
a. Is on long term treatment with carbamazepine, phenobarbitone, phenytoin, primidone, rifampicin, St John’s Wort or other drugs that induce liver enzymes.  
Or  
b. Regularly consumes ethanol in excess of recommended amounts. 
Or  
c. Is likely to be glutathione deplete e.g. eating disorders, cystic fibrosis, HIV infection, starvation, cachexia.

**Symptoms**
Symptoms of paracetamol overdosage in the first 24 hours are pallor, nausea, vomiting, anorexia and abdominal pain. Liver damage may become apparent 12 to 48 hours after ingestion. Abnormalities of glucose metabolism and metabolic acidosis may occur. In severe poisoning, hepatic failure may progress to encephalopathy, haemorrhage, hypoglycaemia, cerebral oedema, and death. Acute renal failure with acute tubular necrosis, strongly suggested by loin pain, haematuria and proteinuria, may develop even in the absence of severe liver damage. Cardiac arrhythmias and pancreatitis have been reported.

**Management**
Immediate treatment is essential in the management of paracetamol overdose. Despite a lack of significant early symptoms, patients should be referred to hospital urgently for immediate medical attention. Symptoms may be limited to nausea or vomiting and may not reflect the severity of overdose or the risk of organ damage. Management should be in accordance with established treatment guidelines, see BNF overdose section.

Treatment with activated charcoal should be considered if the overdose has been taken within 1 hour. Plasma paracetamol concentration should be measured at 4 hours or later after ingestion (earlier concentrations are unreliable). Treatment with N-acetylcysteine may be used up to 24 hours after ingestion of paracetamol, however, the maximum protective effect is obtained up to 8 hours post-ingestion. The effectiveness of the antidote declines sharply after this time. If required the patient should be given intravenous N-acetylcysteine, in line with the established dosage schedule. If vomiting is not a problem, oral methionine may be a suitable alternative for remote areas, outside hospital. Management of patients who present with serious hepatic dysfunction beyond 24h from ingestion should be discussed with the NPIS or a liver unit.

### 5 PHARMACOLOGICAL PROPERTIES

#### 5.1 PHARMACODYNAMIC PROPERTIES

ATC CODE: N02B E 01

NON-OPIOID ANALGESIC

Paracetamol has analgesic and antipyretic effects similar to those of aspirin and is useful in the treatment of mild to moderate pain. It has weak anti-inflammatory effects.

#### 5.2 PHARMACOKINETIC PROPERTIES

Paracetamol is rapidly and almost completely absorbed from the gastrointestinal tract. Peak plasma concentrations are reached 30-90 minutes post dose and the plasma half-life is in the range of 1 to 3 hours after therapeutic doses. Drug is widely distributed throughout most body fluids. Following therapeutic doses 90-100% of the drug is recovered in the urine within 24 hours almost entirely following hepatic conjugation with glucuronic acid (about 60%), sulphuric acid (about 35%) or cysteine (about 3%). Small amounts of hydroxylated and deacetylated metabolites have also been detected. Children have less capacity for glucuronidation of the drug than do adults. In overdosage there is increased N-hydroxylation followed by glutathione conjugation. When the latter is exhausted, reaction with hepatic proteins is increased leading to necrosis.

#### 5.3 PRECLINICAL SAFETY DATA

No relevant information additional to that contained elsewhere in the SPC.
6 PHARMACEUTICAL PARTICULARS
6.1 LIST OF EXCIPIENTS
Glycerol
Polysorbate 80
Xanthan gum
Maltitol liquid
Saccharin sodium
Citric acid monohydrate
Sodium methyl parahydroxybenzoate
Sodium propyl parahydroxybenzoate
Strawberry flavour (containing propylene glycol)
Purified water

6.2 INCOMPATIBILITIES
None Known

6.3 SHELF LIFE
24 months.

6.4 SPECIAL PRECAUTIONS FOR STORAGE
Do not store above 25°C. Store the container in the outer carton. Discard after 2 months of first opening.

6.5 NATURE AND CONTENTS OF CONTAINER
Amber Type III glass bottle
Child Resistant Tamper Evident Cap - High density polypropylene cap with a polyethylene lining
2.5ml/5ml Polypropylene double ended spoon
Pack size available: 100ml; 200ml

6.6 SPECIAL PRECAUTIONS FOR DISPOSAL
No special requirements

7 MARKETING AUTHORISATION HOLDER
Edict Consulting Ltd
49 Ivinghoe Road
Bushey
Herts
WD23 4SW

8 MARKETING AUTHORISATION NUMBER(S)
PL 20941/0001 Legal status - P

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION
03/03/2009

10 DATE OF REVISION OF THE TEXT
03/03/2009
NAME OF THE MEDICINAL PRODUCT
Paracetamol 120mg/5ml Oral Suspension
Tesco Paracetamol 120mg/5ml Oral Suspension

QUALITATIVE AND QUANTITATIVE COMPOSITION
Each 5ml of the oral suspension contains Paracetamol 120mg
For full list of excipients- see section 6.1

PHARMACEUTICAL FORM
Oral Suspension
White uniform suspension with an aroma of strawberries

CLINICAL PARTICULARS
4.1 THERAPEUTIC INDICATIONS
Paracetamol 120mg/5ml Oral Suspension is indicated for the treatment of mild to moderate pain (including teething pain), and as an antipyretic (including post immunisation fever).

4.2 POSOLOGY AND METHOD OF ADMINISTRATION
For oral administration
Children aged 1 to under 6 years:
5 to 10 ml (120 mg to 240 mg paracetamol).
Repeat every 4 hours, if necessary, up to a maximum of 4 doses per 24 hours.

Infants 3 months to under 1 year:
2.5 to 5 ml (60 mg to 120 mg paracetamol). Repeat every 4 hours, if necessary, up to a maximum of 4 doses per 24 hours.

Infants aged 2-3 months:
A 2.5 ml (60 mg) dose is suitable for babies who develop post-vaccination fever at 2 months followed, if necessary, by a second dose 4 to 6 hours later. In other cases, or if the fever persists, use under medical supervision only.

The Elderly:
In the elderly, the rate and extent of paracetamol absorption is normal but plasma half-life is longer and paracetamol clearance is lower than in young adults.

4.3 CONTRAINDICATIONS
Paracetamol Oral Suspension is contra-indicated in patients with known hypersensitivity to paracetamol, or any of the other constituents.

4.4 SPECIAL WARNINGS AND PRECAUTIONS FOR USE
Care is advised in the administration of paracetamol to patients with severe renal or severe hepatic impairment. The hazards of overdose are greater in those with non-cirrhotic alcoholic liver disease.

Do not exceed the recommended dose.
If symptoms persist consult your doctor.
Keep out of the reach and sight of children.

Patients with rare hereditary problems of fructose intolerance should not take this medicine. This product contains sodium methyl parahydroxybenzoate (E219) and sodium propyl parahydroxybenzoate (E217). These may cause allergic reactions (possibly delayed)

4.5 INTERACTION WITH OTHER MEDICINAL PRODUCTS AND OTHER FORMS OF INTERACTION
The speed of absorption of paracetamol may be increased by metoclopramide or domperidone and absorption reduced by cholestyramine.
The anticoagulant effect of warfarin and other coumarins may be enhanced by prolonged regular use of paracetamol with increased risk of bleeding; occasional doses have no significant effect.

Patients who have taken barbiturates, tricyclic antidepressants and alcohol may show diminished ability to metabolise large doses of paracetamol, the plasma half-life of which can be prolonged.

Alcohol can increase the hepatotoxicity of paracetamol overdosage and may have contributed to the acute pancreatitis reported in one patient who had taken an overdose of paracetamol.

Chronic ingestion of anticonvulsants or oral steroid contraceptives induce liver enzymes and may prevent attainment of therapeutic paracetamol levels by increasing first pass metabolism or clearance.

4.6 PREGNANCY AND LACTATION

Pregnancy

Epidemiological studies in human pregnancy have shown no ill effects due to paracetamol used in the recommended dosage, but patients should follow the advice of the doctor regarding its use.

Lactation

Paracetamol is excreted in breast milk but not in a clinically significant amount. Available published data do not contraindicate breast feeding.

4.7 EFFECTS ON ABILITY TO DRIVE AND USE MACHINES

No adverse effects known.

4.8 UNDESIRABLE EFFECTS

Adverse effects of paracetamol are rare but hypersensitivity including skin rash may occur. There have been reports of blood dyscrasias including thrombocytopenia and agranulocytosis, but these were not necessarily causality related to paracetamol.

Most reports of adverse reactions to paracetamol relate to overdosage with the drug.

Chronic hepatic necrosis has been reported in a patient who took daily therapeutic doses of paracetamol for about a year and liver damage has been reported after daily ingestion of excessive amounts for shorter periods. A review of a group of patients with chronic active hepatitis failed to reveal differences in the abnormalities of liver function in those who were long-term users of paracetamol nor was the control of the disease improved after paracetamol withdrawal.

Nephrotoxic effects following therapeutic doses of paracetamol are uncommon. Papillary necrosis has been reported after prolonged administration.

4.9 OVERDOSE

Liver damage is possible in adults who have taken 10g or more of paracetamol. Ingestion of 5g or more of paracetamol may lead to liver damage if the patient has risk factors (see below).

Risk Factors:
If the patient
a, Is on long term treatment with carbamazepine, phenobarbitone, phenytoin, primidone, rifampicin, St John’s Wort or other drugs that induce liver enzymes.
Or
b, Regularly consumes ethanol in excess of recommended amounts.
Or

c, Is likely to be glutathione deplete e.g. eating disorders, cystic fibrosis, HIV infection, starvation, cachexia.
Symptoms
Symptoms of paracetamol overdosage in the first 24 hours are pallor, nausea, vomiting, anorexia and abdominal pain. Liver damage may become apparent 12 to 48 hours after ingestion. Abnormalities of glucose metabolism and metabolic acidosis may occur. In severe poisoning, hepatic failure may progress to encephalopathy, haemorrhage, hypoglycaemia, cerebral oedema, and death. Acute renal failure with acute tubular necrosis, strongly suggested by loin pain, haematuria and proteinuria, may develop even in the absence of severe liver damage. Cardiac arrhythmias and pancreatitis have been reported.

Management
Immediate treatment is essential in the management of paracetamol overdose. Despite a lack of significant early symptoms, patients should be referred to hospital urgently for immediate medical attention. Symptoms may be limited to nausea or vomiting and may not reflect the severity of overdose or the risk of organ damage. Management should be in accordance with established treatment guidelines, see BNF overdose section. Treatment with activated charcoal should be considered if the overdose has been taken within 1 hour. Plasma paracetamol concentration should be measured at 4 hours or later after ingestion (earlier concentrations are unreliable). Treatment with N-acetylcysteine may be used up to 24 hours after ingestion of paracetamol, however, the maximum protective effect is obtained up to 8 hours post-ingestion. The effectiveness of the antidote declines sharply after this time. If required the patient should be given intravenous N-acetylcysteine, in line with the established dosage schedule. If vomiting is not a problem, oral methionine may be a suitable alternative for remote areas, outside hospital. Management of patients who present with serious hepatic dysfunction beyond 24h from ingestion should be discussed with the NPIS or a liver unit.

5 PHARMACOLOGICAL PROPERTIES
5.1 PHARMACODYNAMIC PROPERTIES
ATC CODE: N02B E 01
NON-OPIOID ANALGESIC
Paracetamol has analgesic and antipyretic effects similar to those of aspirin and is useful in the treatment of mild to moderate pain. It has weak anti-inflammatory effects.

5.2 PHARMACOKINETIC PROPERTIES
Paracetamol is rapidly and almost completely absorbed from the gastrointestinal tract. Peak plasma concentrations are reached 30-90 minutes post dose and the plasma half-life is in the range of 1 to 3 hours after therapeutic doses. Drug is widely distributed throughout most body fluids. Following therapeutic doses 90-100% of the drug is recovered in the urine within 24 hours almost entirely following hepatic conjugation with glucuronic acid (about 60%), sulphuric acid (about 35%) or cysteine (about 3%). Small amounts of hydroxylated and deacetylated metabolites have also been detected. Children have less capacity for glucuronidation of the drug than do adults. In overdosage there is increased N-hydroxylation followed by glutathione conjugation. When the latter is exhausted, reaction with hepatic proteins is increased leading to necrosis.

5.3 PRECLINICAL SAFETY DATA
No relevant information additional to that contained elsewhere in the SPC.

6 PHARMACEUTICAL PARTICULARS
6.1 LIST OF EXCIPIENTS
Glycerol
Polysorbate 80
Xanthan gum
Maltitol liquid
Saccharin sodium
Citric acid monohydrate
Sodium methyl parahydroxybenzoate
Sodium propyl parahydroxybenzoate
Strawberry flavour (containing propylene glycol)
Purified water
6.2 INCOMPATIBILITIES
None Known

6.3 SHELF LIFE
24 months.

6.4 SPECIAL PRECAUTIONS FOR STORAGE
Do not store above 25°C. Store the container in the outer carton. Discard after 2 months of first opening.

6.5 NATURE AND CONTENTS OF CONTAINER
Amber Type III glass bottle
Child Resistant Tamper Evident Cap - High density polypropylene cap with a polyethylene lining
2.5ml/5ml Polypropylene double ended spoon
Pack size available: 100ml

6.6 SPECIAL PRECAUTIONS FOR DISPOSAL
No special requirements

7 MARKETING AUTHORISATION HOLDER
Edict Consulting Ltd
49 Ivinghoe Road
Bushey
Herts
WD23 4SW

8 MARKETING AUTHORISATION NUMBER(S)
PL 20941/0003 Legal status - GSL

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION
03/03/2009

10 DATE OF REVISION OF THE TEXT
03/03/2009
UKPAR Paracetamol 120mg/5ml Oral Suspension

Patient Information Leaflet
Paracetamol 120mg/5ml Oral Suspension

In this leaflet
1. What this medicine is for
2. Before using this medicine
3. How to take this medicine
4. Possible side effects
5. Storing your medicine
6. Further information

1. What this medicine is for
Paracetamol belongs to a group of medicines called analgesics that help to ease pain. It is used to treat mild to moderate pain including teething pain. It is also used to bring down fever (high temperature) including fever caused by immunisation.

2. Before using this medicine
This medicine is suitable for most people but a few people should not use it. If you are in any doubt, talk to your doctor or pharmacist.

Do not take or give your child this medicine...
- If you/your child has ever had a bad reaction to any of the ingredients (see section 6).
- If you/your child is taking anything else with paracetamol in it. Paracetamol is often included in cold and flu remedies, and in other medicines you can buy. (Each medicine that contains paracetamol is printed on the pack). If any of these applies, get advice from a pharmacist or doctor without using Paracetamol Oral Suspension.

Talk to your doctor or pharmacist...
- If you/your child has serious kidney or liver problems.
- If you/your child are dependent on alcohol.

Important information about some of the ingredients of Paracetamol Oral Suspension
- Maltitol liquid: If you have been told by your doctor that you or your child have intolerance to some sugars, contact your doctor before taking this medicine.
- Sodium methyl parahydroxybenzoate (E219) and Sodium propyl parahydroxybenzoate (E217): May cause allergic reactions (possibly delayed).

3. How to use this medicine
Paracetamol 120mg/5ml Oral Suspension should be swallowed. Follow the instructions below about when and how to give the medicine to your child or take it yourself unless otherwise instructed by your doctor.
- Always shake the bottle thoroughly before use.
- Do not use more medicine than shown in the table.
- Do not overfill the spoon.
- There is a double ended spoon in the pack to help you measure the dose.

<table>
<thead>
<tr>
<th>Dosage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3 months</td>
<td>For children under 4 years, give 2.5ml (60mg) 4 times a day</td>
</tr>
<tr>
<td>3-12 months</td>
<td>For children 4-10 years, give 5ml (120mg) 4 times a day</td>
</tr>
<tr>
<td>1 year to 6 years</td>
<td>For children 1-6 years, give 5ml (120mg) 4 times a day</td>
</tr>
<tr>
<td>Above 6 years</td>
<td>For children 6-12 years, give 10ml (240mg) 4 times a day</td>
</tr>
</tbody>
</table>

Warning: Do not exceed the stated dose
- Do not give more than 4 doses in 24 hours.
- Do not repeat doses more frequently than 4 hourly.

If symptoms persist for more than 3 days see your doctor.

4. Possible side effects
Paracetamol Oral Suspension can have side effects, like all medicines, although these don’t affect everyone and are usually mild. If any of the following happen, stop giving Paracetamol Oral Suspension and tell your doctor immediately or go to the casualty department at your nearest hospital.
- Swelling of the hands, feet, ankles, face, lips, mouth, or throat which may cause difficulty in swallowing or breathing.

These are all very serious side effects. If you or your child have them, you may have a serious allergic reaction to Paracetamol Oral Suspension. You may need urgent medical attention or hospitalisation.

All of these very serious side effects are very rare.
Tell your doctor as soon as possible if you notice any of these:

- skin rashes or other signs of allergy.
- becoming unusually tired, unexpected bruising or bleeding and getting more infections (such as colds) than usual.

These are very rare side effects in people taking paracetamol.

If your child shows any of these signs, stop giving paracetamol and talk to your doctor.

Long term use:

People who use medicines containing paracetamol every day for a long time (several months or more) could get certain side effects, including liver and kidney damage.

People taking paracetamol in the usual way for shorter periods have not had these problems.

If you notice any side effects not included in this leaflet please tell your doctor or pharmacist.

5. Storing your medicine

- Keep out of the reach and sight of children.
- Do not store above 25°C. Store the container in the outer carton. Discard after 2 months of first opening.
- Do not use Paracetamol Oral Suspension after the expiry date which is stated on the bottle after Exp.: The expiry date refers to the last day of that month.
- Medicines should not be disposed via wastewater or household waste. Ask your pharmacist how to dispose of medicines no longer required. These measures will help to protect the environment.

6. Further information

Each 5ml suspension contains 120mg Paracetamol.

It also contains glycerol, polysorbate 80, xanthan gum (E415), maltitol liquid (E965), sodium saccharin (E954), citric acid monohydrate, sodium methyl parahydroxybenzoate (E219), sodium propyl parahydroxybenzoate (E217), strawberry flavour (containing propylene glycol) and purified water.

Each bottle contains 100ml or 200ml of oral suspension.

The Marketing Authorisation for Paracetamol Oral Suspension (PL 20941/0001) is held by Edict Consulting Ltd., 49 Ivinghoe Road, Bushey, Herts WD23 4SW.

It is manufactured and distributed by Orbis Consumer Products Ltd, Gunard Road, Park Royal, London NW10 6PN.

Leaflet Updated: November 2008
UKPAR Paracetamol 120mg/5ml Oral Suspension

Patient Information Leaflet
Tesco
Paracetamol 120mg/5ml Oral Suspension

Important information about some of the ingredients of Paracetamol Oral Suspension
- Maltitol: liquid. If you have been told by your doctor that you or your child have intolerance to some sugars, contact your doctor before taking this medicine.
- Sodium methyl parahydroxybenzoate (E219) and Sodium propyl parahydroxybenzoate (E217): May cause allergic reactions (possibly delayed).

3. How to use this medicine
Paracetamol 120mg/5ml Oral Suspension should be swallowed. Follow the instructions below about when and how to give the medicine to your child or take it yourself unless otherwise instructed by your doctor.
- Always shake the bottle thoroughly before use.
- Do not use more medicine than shown in the table.
- Do not overfill the spoon.
- There is a double ended spoon in the pack to help you measure the dose.

DOSAGE:

| 2 - 3 months: | 2.5ml (60mg) can be given, if needed a second dose can be given 4 to 6 hours later. If more is needed speak to your doctor. |
| 3 - 12 months: | 5ml - 5ml (60mg-120mg) every 4 hours up to 4 times a day. |
| 1 year - 6 years: | 5ml-10ml (120mg-240mg) every 4 hours up to 4 times a day. |
| Above 6 years: | Ask a pharmacist to recommend a suitable product. |

Warning: Do not exceed the stated dose
- Do not give more than 4 doses in 24 hours.
- Do not repeat doses more frequently than 4 hours.
- If symptoms persist for more than 3 days see your doctor.

1. What this medicine is for
Paracetamol belongs to a group of medicines called analgesics that help to ease pain. It is used to treat mild to moderate pain including teething pain. It is also used to bring down fever (high temperature) including fever caused by immunisation.

2. Before using this medicine
This medicine is suitable for most people but a few people should not use it. If you are in any doubt, talk to your doctor or pharmacist.
- Do not use this medicine
  - if you are pregnant or breast feeding;
  - if you have epilepsy;

3. Possible side effects
Paracetamol Oral Suspension can have side effects, like all medicines, although these don't affect everyone and are usually mild. If any of the following happen, stop giving Paracetamol Oral Suspension and tell your doctor immediately or go to the casualty department at your nearest hospital.
- Swelling of the hands, feet, ankles, face, lips, mouth, or throat which may cause difficulty in swallowing or breathing.
- These are all very serious side effects. If you or your child have them, you may have a serious allergic reaction to Paracetamol Oral Suspension. You must seek urgent medical attention or hospitalisation. All of these very serious side effects are very rare.

Taking other medicines:
- Tell your doctor or pharmacist if you are taking any other medicines including herbal medicines and those that you may have bought yourself.
- Paracetamol can interfere with the action of some other drugs and some drugs can have an effect on paracetamol. The drugs which can cause some problems when taken together with paracetamol are:
  - barbiturates (sleeping tablets);
  - tricyclic antidepressants (e.g. amitriptyline);
  - cholestyramine (used in the treatment of high cholesterol levels);
  - warfarin (used to thin the blood and prevent clotting);
  - domperidone and metoclopramide (used in the treatment of nausea and vomiting).

Pregnancy and Breast-feeding:
- Ask your doctor or pharmacist for advice before taking this medicine if you are pregnant or think you might be pregnant.
- Ask your doctor or pharmacist for advice before taking this medicine if you are breast-feeding.

Driving and using machines
- Your medicine is unlikely to affect your ability to drive or to operate machinery.

If you give more Paracetamol Oral Suspension than you should
If you accidentally take, or give an overdose of this medicine, either call your doctor straight away, or go to your nearest hospital casualty department. Always take any remaining medicine, the container and the label with you, so that the medicine can be identified.

Immediate medical advice should be sought in the event of an overdose even if the child does feel well because of the risk of delayed serious liver damage.

There may be no symptoms during the first 24 hours although loss of colour, feeling sick, vomiting and abdominal pain may occur.

If you forget to give Paracetamol Oral Suspension
Give the next dose when needed provided that the last dose was given at least 4 hours ago. Do not give a double dose.

If you are worried, or not sure of when or how to use this medicine, ask your doctor or pharmacist for advice.

4. Possible side effects

Read all of this leaflet carefully because it contains important information for you.
This medicine is available without a prescription. However, you still need to use Tesco Paracetamol Oral Suspension (now called Paracetamol Oral Suspension throughout this leaflet) carefully to get the best results from it.
• Keep this leaflet. You may need to read it again.
• Ask your pharmacist if you need more information or advice.
• You must contact a doctor if your or your child’s symptoms worsen or do not improve after 3 days.
• If any of the side effects gets serious, or if you notice any side effects not listed in this leaflet, please tell your doctor or pharmacist.

In this leaflet:
1. What this medicine is for
2. Before using this medicine
3. Possible side effects
4. Storing your medicine
5. Further information

Talk to your doctor or pharmacist:
- If you or your child has serious kidney or liver problems.
- If you or your child is dependent on alcohol.

Talk to your doctor or pharmacist if you:
- Have problems when taking any of the ingredients (see section 6).
- If you or your child is taking anything else with paracetamol in it. Paracetamol is often included in cold and flu remedies, and in other medicines you can buy. Each medicine has “contains paracetamol” printed on the pack.
- If any of these applies, get advice from a pharmacist or doctor without using Paracetamol Oral Suspension.
Tell your doctor as soon as possible if you notice any of these:
- skin rashes or other signs of allergy.
- becoming unusually tired, unexpected bruising or bleeding and getting more infections (such as colds) than usual.

These are very rare side effects in people taking paracetamol.

If your child shows any of these signs, stop giving paracetamol and talk to your doctor.

Long term use:
People who use medicines containing paracetamol every day for a long time (several months or more) could get certain side effects, including liver and kidney damage.

People taking paracetamol in the usual way for shorter periods have not had these problems. If you notice any side effects not included in this leaflet please tell your doctor or pharmacist.

5. Storing your medicine
- Keep out of the reach and sight of children
- Do not store above 25°C. Store the container in the outer carton. Discard after 2 months of first opening.
- Do not use Paracetamol Oral Suspension after the expiry date which is stated on the bottle after Exp:. The expiry date refers to the last day of that month.
- Medicines should not be disposed via wastewater or household waste. Ask your pharmacist how to dispose of medicines no longer required. These measures will help to protect the environment.

6. Further information
Each 5ml of suspension contains 120mg Paracetamol.
It also contains glycerol, polysorbate 80, xanthan gum (E415), maltitol liquid (E965), sodium saccharin (E954), citric acid monohydrate, sodium methyl parahydroxybenzoate (E219), sodium propyl parahydroxybenzoate (E217), strawberry flavour (containing propylene glycol) and purified water.

Each bottle contains 100ml or 200ml of oral suspension.

The Marketing Authorisation for Paracetamol Oral Suspension (PL 20941/0001) is held by Edict Consulting Ltd., 49 Ivinghoe Road, Bushey, Herts WD23 4SW.

It is manufactured and distributed by Orbis Consumer Products Ltd, Cunard Road, Park Royal, London NW10 6PN.
Leaflet Updated: November 2008

3047/1
**READ THE ENCLOSED LEAFLET CAREFULLY BEFORE USE**
For oral administration. Shake the bottle thoroughly. The spoon provided should be used to measure a 2.5ml or 5ml dose.

<table>
<thead>
<tr>
<th>DOSAGE:</th>
<th></th>
<th></th>
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<td>2 - 3 months:</td>
<td>After vaccination, in case of fever, 2.5ml (60mg) can be given. If needed a second dose can be given 4 to 6 hours later. If more is needed speak to your doctor.</td>
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<td>3 - 12 months:</td>
<td>2.5ml - 5ml (60mg - 120mg) every 4 hours up to 4 times a day.</td>
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<td>5ml - 10ml (120mg - 240mg) every 4 hours up to 4 times a day.</td>
<td></td>
</tr>
<tr>
<td>Over 6 years:</td>
<td>Ask a pharmacist to recommend a suitable product.</td>
<td></td>
</tr>
</tbody>
</table>

**DO NOT EXCEED THE STATED DOSE**
Do not give more than 4 doses in 24 hours. Do not repeat doses more frequently than 4 hourly. For short term use only. Do not give for more than 3 days without consulting your doctor.

**Paracetamol 120mg/5ml Oral Suspension**

- Sugar Free
- Colour Free
- Strawberry Flavour

**Do not give with any other paracetamol-containing products.**
Immediate medical advice should be sought in the event of an overdose, even if the child seems well because of the risk of delayed, serious liver damage.

Paracetamol 120mg/5ml Oral Suspension is a specially formulated suspension for babies and children from 3 months. It can be used to relieve pain (including teething pain) and feverishness.


Each 5ml contains 120mg of paracetamol. It also contains Maltitol liquid (E965), sodium methyl parahydroxybenzoate (E217), sodium propyl parahydroxybenzoate (E219). See leaflet for full list of ingredients.

PL holder: Edict Consulting Limited, 49 Irvinghoe Road, Bushey. WD23 4SW PL 20941/0001
Paracetamol 120mg/5ml Oral Suspension

**DOSAGE:**

<table>
<thead>
<tr>
<th>Age</th>
<th>Dosage</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 - 3 months</td>
<td>2.5ml -5ml (60mg - 120mg) every 4 hours up to 4 times a day.</td>
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**Do not exceed the stated dose**

Do not give more than 4 doses in 24 hours. Do not repeat doses more frequently than 4 hourly. For short term use only. Do not give for more than 3 days without consulting your doctor.

Paracetamol 120mg/5ml Oral Suspension is a specially formulated suspension for babies and children from 3 months. It can be used to relieve pain (including teething pain) and feverishness.


Each 5ml contains 120mg of paracetamol. It also contains Maltitol liquid (E965), sodium methyl parahydroxybenzoate(E217), sodium propyl parahydroxybenzoate(E219). See leaflet for full list of ingredients.

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READ THE ENCLOSED LEAFLET CAREFULLY BEFORE USE.

For oral administration. Shake the bottle thoroughly. The spoon provided should be used. It can be used to measure a 2.5ml or 5ml dose.

**DOSE**

**2-3 months:** 2.5ml (60mg) can be given. If needed a second dose can be given 4 to 6 hours later. If more is needed speak to your doctor.

**3-12 months:** 2.5ml - 5ml (60mg - 120mg) every 4 hours up to 4 times a day.

**1 year-6 years:** 5ml - 10ml (120mg - 240mg) every 4 hours up to 4 times a day.

**Over 6 years:** Ask a pharmacist to recommend a suitable product.

**DO NOT EXCEED THE STATED DOSE**

- Do not give more than 4 doses in 24 hours.
- Do not repeat doses more frequently than 4 hourly.

For short term use only. Do not give for more than 3 days without consulting your doctor.

Do not give with any other paracetamol-containing products. Immediate medical advice should be sought in the event of an overdose, even if your child seems well, because of the risk of delayed, serious liver damage.

PARACETAMOL 120mg/5ml Oral Suspension

Sugar Free Colour Free Strawberry Flavour

FOR FAST and EFFECTIVE fever and pain relief for babies and children

Paracetamol 120mg/5ml Oral Suspension is a specially formulated suspension for babies and children from 3 months.

Paracetamol 120mg/5ml Oral Suspension can be used to relieve pain (including teething pain) and feverishness.

KEEP OUT OF REACH AND SIGHT OF CHILDREN

Do not store above 25°C. Store the container in the outer carton. Discard after 2 months of first opening.

Each 5ml contains 120mg of paracetamol. It also contains Maltitol liquid (E965), sodium methylparahydroxybenzoate (E217), sodium propylparahydroxybenzoate (E219). See leaflet for full list of ingredients.

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**BN:**

**EXP:**
Paracetamol 120 mg/5 ml oral suspension is a specially formulated suspension for babies and children from 3 months. Paracetamol 120 mg/5 ml oral suspension can be used to relieve pain (including teething pain) and feverishness.

Read the enclosed leaflet carefully before use.
For oral administration. Shake the bottle thoroughly. The spoon provided should be used. It can be used to measure a 2.5 ml or 5 ml dose.

DOSAGE:

2 - 3 months: After vaccination, in case of fever, 2.5 ml (60 mg) can be given. If needed a second dose can be given 4 to 6 hours later. If more is needed speak to your doctor.
3 - 12 months: 2.5 ml – 5 ml (60 mg - 120 mg) every 4 hours up to 4 times a day.
1 year - 6 years: 5ml -10 ml (120mg - 240mg) every 4 hours up to 4 times a day.
Over 6 years: Ask a pharmacist to recommend a suitable product.

DO NOT EXCEED THE STATED DOSE

Do not give with any other paracetamol-containing products. Immediate medical advice should be sought in the event of an overdose, even if your child seems well, because of the risk of delayed, serious liver damage.

Keep out of the reach and sight of children.
For short term use only.
- Do not give more than 4 doses in 24 hours.
- Do not repeat doses more frequently than 4 hourly.
- Do not give for more than 3 days without consulting your doctor.

Ingredients

- Active ingredient: Each 5 ml of the oral suspension contains 1.20 mg Paracetamol. Also contains: Maltitol liquid (E662), sodium methyl parahydroxybenzoate (E219), sodium propyl parahydroxybenzoate (E217).
- Do not store above 25°C.
- Store the container in the outer carton.
- Discard after 2 months of first opening.

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Edict Consulting Ltd,
49 Ivinghoe Road, Bushey,
Herts. WD23 4SW.
PL 20941/0003

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