ANNEX I

# SUMMARY OF PRODUCT CHARACTERISTICS

# 1. NAME OF THE MEDICINAL PRODUCT

AMGLIDIA 0.6 mg/mL oral suspension AMGLIDIA 6 mg/mL oral suspension

# 2. QUALITATIVE AND QUANTITATIVE COMPOSITION

AMGLIDIA 0.6 mg/mL oral suspension

Each mL contains 0.6 mg glibenclamide.

AMGLIDIA 6 mg/mL oral suspension

Each mL contains 6 mg glibenclamide.

Excipient(s) with known effect

Each mL contains 2.8 mg of sodium and 5 mg of benzoate salt.

For the full list of excipients, see section 6.1.

# 3. PHARMACEUTICAL FORM

Oral suspension. White, odourless suspension.

# 4. CLINICAL PARTICULARS

#### 4.1 Therapeutic indications

AMGLIDIA is indicated for the treatment of neonatal diabetes mellitus, for use in newborns, infants and children.

Sulphonylureas like AMGLIDIA have been shown to be effective in patients with mutations in the genes coding for the  $\beta$ -cell ATP-sensitive potassium channel and chromosome 6q24-related transient neonatal diabetes mellitus.

#### 4.2 Posology and method of administration

Glibenclamide suspension therapy should be initiated by a physician experienced in the treatment of patients with very early onset diabetes.

#### Prescription instructions

Care should be taken when prescribing and administering AMGLIDIA to avoid dosing errors due to confusion between milligram (mg) and millilitre (mL). It should be ensured that the proper dose and strength are communicated and dispensed.

#### Posology

To avoid exceeding sodium benzoate acceptable daily dose, AMGLIDIA daily dose should not exceed 1 mL/kg/day. As a consequence, AMGLIDIA 0.6 mg/mL should not be used for posology higher than 0.6 mg/kg/day.

To limit exposure to sodium benzoate and with respect to the mode of delivery (1 mL and 5 mL oral syringes), it is not recommended to use the AMGLIDIA 0.6 mg/mL strength for posologies higher than the ones described below:

Body weight (kg)	Maximum recommended posology (expressed as mg/kg/day) where the AMGLIDIA 0.6 mg/mL strength can be used
Up to 10	0.6
11	0.5
12	0.5
13	0.4
14	0.4
15	0.4
16	0.3
17	0.3
18	0.3
19	0.3
20	0.3

In any other cases, AMGLIDIA 6 mg/mL should be preferred.

#### Inpatient treatment introduction

AMGLIDIA should be initiated at a 0.2 mg/kg per day in two divided doses before feeding (including bottle feeding).

The dose should be increased daily by 0.2 mg/kg per day in two divided doses up to a total daily dose of 1 mg/kg. As the dose is increased, it is usually possible to reduce and then stop the insulin dose.

Since AMGLIDIA is administered with an oral syringe graduated in mL, the calculated daily dose should be expressed in mL by the physician explicitly stating the strength to be used. The syringe will be chosen (1 mL or 5mL) based on the volume in ml to be administered for each dose, as prescribed by the physician. The 5 mL syringe has to be used for volumes greater than 1 mL. The nearest volume to the calculated one should be used.

Patients should be closely monitored by their treating physician during the titration phase.

	Patient admission.		
Day 0	Regular monitoring of blood-glucose		
	Current insulin at evening (basal and/or bolus).		
	No food or insulin, only water can be given.		
	8 am: take basal H	bA1c, paired Fasting glucose and C peptide.	
	Then, give breakfa	st, bolus insulin and the first dose of glibenclamide 0.1 mg/kg.	
Day 1	Continue measurin	ng glucose before meals and before bed daily.	
Administer bolus		insulin with meals as required.	
	Give evening glib	penclamide dose (0.1 mg/kg) unless capillary blood-glucose $< 7$ mmol/L.	
	Give basal and/or	bolus insulin as usual in the evening.	
	Omit basal insulin	and remain off this for the period of the transfer process.	
	If on insulin pump	, reduce basal rate of insulin pump by 50% and reduce further in	
	accordance with c	apillary blood-glucose measurements.	
	Throughout transf	er period, administer bolus insulin or insulin pump boluses with meals as	
	required to maintain reasonable glycemic control.		
Day 2	Capillary blood-		
	glucose*	Glibenclamide suspension and insulin dose	
	> 7 mmol/L	0.2 mg/kg with breakfast and evening meal (total dose 0.4 mg per kg	
		per day)	
	< 7 mmol/L	0.1 mg/kg (total dose 0.2 mg per kg per day)	
		Reduce pre-meal insulin dose by 50%.	
	× 7	0.3 mg/kg of glibenclamide with breakfast and evening meal (total	
Day 2	> / mmol/L	dose 0.6 mg/kg per day)	
Day 5	< 7 mm a1/I	0.2 mg/kg of glibenclamide (total dose 0.4 mg/kg per day)	
	</td <td>Reduce pre-meal insulin dose by 50%.</td>	Reduce pre-meal insulin dose by 50%.	
	> 7	0.4 mg/kg of glibenclamide with breakfast and evening meal (total	
	> / IIIIII0I/L	dose 0.8 mg/kg per day)	
Day 4		0.3 mg/kg of glibenclamide with breakfast and evening meal (total	
, , , , , , , , , , , , , , , , , , ,	< 7 mmol/L	dose 0.6 mg/kg per day)	
		Reduce pre-meal insulin dose by 50%.	
7 17	> 7	0.5 mg/kg of glibenclamide with breakfast and evening meal (total	
	> / Immol/L	dose 1 mg/kg per day)	
Day 5		0.4 mg/kg of glibenclamide with breakfast and evening meal (total	
5	< 7 mmol/L	dose 0.8 mg/kg per day)	
		Reduce pre-meal insulin dose by 50%.	

\* Pre-breakfast glucose may be very slow to fall and pre-lunch or pre-evening meal glucose values fall more rapidly and are generally a better marker of response to glibenclamide suspension.

From day 6 and onwards, maintain dose at 1 mg/kg per day of glibenclamide for at least 4 weeks. This may be done as an outpatient.

Doses of up to 2.8 mg/kg/day have been successfully given without adverse reactions, according to literature. In case of a partial response on lower doses, as shown by reduced insulin requirements, a further dose increase up to 2.8 mg/kg/day may be tried in selected cases.

Patients can be discharged when no longer requiring insulin treatment, when stable on a combination of glibenclamide and insulin or when stable on insulin alone.

Patients' capillary blood-glucose concentration should continue to be monitored four times a day and at bedtime, as insulin requirements may continue to fall, or glibenclamide suspension dose may need to be reduced.

# Dosage adjustments

Often, blood-glucose concentration will fall even though the patient is on a fixed dose of glibenclamide suspension.

Therefore, to avoid hypoglycaemia, consideration should be given to reducing the dose of AMGLIDIA or stopping treatment. Reduction of the glibenclamide suspension dose should be anticipated by the treating physician and certainly if the glucose values are going below 4 mmol/L (72 mg/dL).

Changing the dosage should also be discussed, whenever:

- patients change weight,
- patients change life style (physical activity),
- other factors arise (febrile episodes, gastro-enteritis),

causing an increase in susceptibility to hypoglycaemia or hyperglycaemia.

#### **Outpatient treatment introduction**

AMGLIDIA dose should be progressively increased each week by 0.2 mg/kg per day in two divided doses up to a total daily dose of 1 mg/kg. As the dose is increased, it is usually possible to reduce and then stop the insulin dose.

	Pre-meal capillary	Glibenclamide	Insulin treatment
	blood-glucose values	daily dose	insum treatment
Wook 1	>7  mmol/L	0.2 mg/kg	No change. As required.
WEEK I	< 7  mmol/L	-	As required.
	>7  mmol/L	0.4 mg/kg	Insulin reduction*.
Week 2			Reduce insulin. If blood-glucose value
Week 2	< 7  mmol/L	0.2 mg/kg	increases after reduction of insulin, then
			increase glibenclamide to 0.4 mg/kg.
	>7  mmol/L	0.6 mg/kg	Continue insulin reduction*.
Week 2			Reduce insulin. If blood-glucose value
week 3	< 7  mmol/L	0.4 mg/kg	increases after reduction of insulin, then
			increase glibenclamide to 0.6 mg/kg.
	>7 mmol/L	0.8 mg/kg	Discontinued.
Week 4			Reduce insulin. If blood-glucose value
week 4	< 7 mmol/L	0.6 mg/kg	increases after reduction of insulin, then
			increase glibenclamide to 0.8 mg/kg.

\* Insulin reduction should be done using the pre-meal glucose.

- At week 5, proceed as follows:
  - In case insulin is discontinued, the daily dose of glibenclamide is 0.8 mg/kg.
  - In case insulin is ongoing, the daily dose of glibenclamide is 1 mg/kg.

If at the end of this 5 or 6-week period, there is no evidence of a response with insulin doses similar to those at starting, administration of 2 mg per kg per day for a week is recommended. (In rare cases, it has taken 4 months to wean off insulin completely).

If there is a clear reduction in insulin requirement at this dose of 2 mg per kg per day (reduction in insulin to at least 60% of pre-glibenclamide dose), then it is worth continuing a higher dose of glibenclamide over a prolonged period of time in selected cases.

#### Long term treatment management

Patients occasionally may have very high glucose values, i.e. > 20 mmol/L (> 360 mg/dL), in some cases these high glucose values seem to settle with the normal dose of glibenclamide. However, close monitoring of blood-glucose is required in all cases (please also refer to recommendations given under the heading "dose omission" further below) and adequate measures to restore euglycemia (e. g.

application of a third daily glibenclamide dose or insulin) have to be taken.

If the patient has glucose values below 4 mmol/L (72 mg/dL) glibenclamide suspension dose may be reduced.

If no improvement is seen (unchanged insulin dose, similar glycaemic control and no improvement in neurology), glibenclamide should be discontinued.

# <u>Transfer of patients with neonatal diabetes from off-label use of glibenclamide tablets to glibenclamide suspension</u>

The prescribers should take into consideration the fact that the dose adjustment depends on whether micronised or non-micronised glibenclamide tablets were used prior to the glibenclamide suspension. Bioavailability of the glibenclamide suspension formulation is higher compared to the non-micronised glibenclamide crushed tablets. Bioavailability has been demonstrated to be higher compared to reference (non-micronised) glibenclamide product only. Head to head comparative pharmacokinetic data following application of suspension and micronised tablets are not available (see section 5.2).

Therefore, when the child is on stable dose of crushed or whole non-micronised glibenclamide tablets, the starting dose of glibenclamide suspension should be decreased by 18% for the 0.6 mg/mL formulation and by 12% for the 6 mg/mL, respectively, with the same numbers of intake per day. For children pretreated with micronised glibenclamide tablets, no dosing recommendation can be given since this was not studied.

It may be necessary to adjust the dosage of AMGLIDIA oral suspension in patients suffering from intercurrent infections, trauma, shock or anaesthesia:

- o For major surgery, insulin therapy should replace AMGLIDIA oral suspension;
- Hepatic or renal dysfunction may require a reduction in dosage;
- In exceptional situations of stress (e.g. trauma, surgery, febrile infections), blood-glucose regulation may deteriorate, and a temporary change to insulin may be necessary to maintain good metabolic control.

#### Dose omission

If a dose is forgotten, there is a risk of hyperglycaemia. **Blood-glucose level must be checked immediately and AMGLIDIA taken as soon as possible.** If the blood-glucose level exceeds 16.5 mmol/L, the presence of ketonuria or ketonaemia must also be checked. If ketone bodies are present, an insulin injection must be given rapidly to restore the metabolic situation. The attending specialist should then be contacted.

#### Special populations

#### Renal impairment

Dose adjustment is required in patients with mild to moderate renal impairment. In those patients, treatment should be started at the lowest dose and dosage levels strictly followed, to avoid hypoglycaemic reactions (see section 4.4). For severe renal impairment see section 4.3.

#### Hepatic impairment

Dose adjustment is required in patients with mild to moderate hepatic impairment. In those patients, treatment should be started at the lowest dose and dosage levels strictly followed, to avoid hypoglycaemic reactions (see section 4.4). For severe hepatic impairment see section 4.3.

#### Adults and elderly

Safety and efficacy of glibenclamide oral suspension in elderly patients has not been established since the medicinal product is indicated in the paediatric population.

# Paediatric population

AMGLIDIA is to be used in newborns, infants and children. For adolescents glibenclamide tablets are more appropriate and convenient.

# At risk patients

In malnourished patients or those displaying a marked change in their general condition, or whose calorie intake is irregular, and in patients with impaired renal or hepatic function, treatment should be started at the lowest dose and dosage levels strictly followed, to avoid hypoglycaemic reactions (see section 4.4).

# Method of administration

The bottle does not need to be shaken before administration.

This medicinal product is administered orally as a ready made oral suspension using a graduated oral syringe. It is administered directly into the child's mouth.

Since no interaction study between glibenclamide and milk has been performed, and despite absence of food effect on glibenclamide absorption, recommendation is given to administer the suspension 15 minutes before child's milk feeding.

Only the oral syringe included in the outer carton should be used.

Depending on the volume to be administered orally, there are two types of oral syringes, graduated up to 1 mL or up to 5 mL. Each syringe is included in a specific presentation. The appropriate syringe (1 mL or 5 mL), included in a specific AMGLIDIA presentation, will be prescribed by the physician based on the volume to be administered for each dose.

The two syringes, respectively included in two different presentations for each strength, are clearly distinguishable: 1 mL oral syringe is thin and small while 5 mL syringe is thick and long.

The dose to be administered is obtained by drawing the plunger back as far as the scale marking for the dose determined for each child. This dose can be repeated, if necessary, after 6 hours, without exceeding 4 doses per day, as a general rule.

Administration with a feeding tube should be avoided.

# 4.3 Contraindications

This medicinal product is contraindicated in the following cases:

- hypersensitivity to the active substance, other sulphonylureas or sulphonamides or to any of the excipients listed in section 6.1;
- in patients with ketoacidosis, continuous intravenous insulin injection and intravenous infusion of physiologic saline remains the benchmark treatment.
- in patients with porphyria;
- in patients taking bosentan (see section 4.5)
- in patients with severe renal impairment
- in patients with severe hepatic impairment

#### 4.4 Special warnings and precautions for use

Special care should be taken when calculating the dose. Before each administration, it should be verified that the correct strength and syringe are used.

AMGLIDIA should not be used in patients with insulin-dependent type 1 diabetes mellitus with evidence of auto-immune destruction of beta cells.

Patients with G6PD enzyme deficiency

In patients carrying a G6PD enzyme deficiency, cases of acute haemolytic anaemia have been reported with glibenclamide. It should therefore not be prescribed for these patients, and the use of an alternative treatment is strongly recommended, if available. If there is no alternative, the decision for each patient must consider the danger of haemolysis and the potential benefit expected from the treatment. If it is necessary to prescribe this medicinal product, screening should be conducted for the occurrence of any haemolysis.

# Hypoglycaemia

Hypoglycaemia can occur under treatment with hypoglycaemic sulphonamides. This can sometimes be severe and prolonged. Hospitalisation may then prove necessary and sugar may have to be administered for several days.

#### Diarrhea, nausea and vomiting

In some patients, there may be an initial diarrhea when the dose of glibenclamide suspension is increased but it settles if the dose is maintained.

In case of nausea glycaemia seems to be maintained and insulin does not need to be re-introduced until the patient is able to take the glibenclamide suspension.

If there is major vomiting, a fast-acting insulin should be used to treat the patient until vomiting stops. If there is minor vomiting, an antivomiting medicinal product should be given and treatment with AMGLIDIA can be continued.

#### **Biological analyses:**

Blood-glucose should be monitored periodically throughout treatment with glibenclamide. If the blood-glucose level exceeds 16.5 mmol/L, the presence of ketonuria or ketonaemia must also be checked. If ketone bodies are present, an insulin injection must be given rapidly to restore the metabolic situation.

The glycosylated haemoglobin level should be measured every three months to assess the child's metabolic equilibrium.

#### Renal impairment:

Patients with renal impairment should be monitored periodically during treatment due to the increased risk of hypoglycaemia. Dose adjustment is required in patients with mild to moderate renal impairment (refer to section 4.2).

#### Hepatic impairment:

Patients with hepatic impairment should be monitored periodically during treatment due to the increased risk of hypoglycaemia. Dose adjustment is required in patients with mild to moderate hepatic impairment (refer to section 4.2).

#### Sodium

This medicinal product contains 2.8 mg of sodium per mL oral suspension, equivalent to 0.1% of the WHO recommended daily intake of 2 g sodium for an adult. To be taken into consideration by patients on a controlled sodium diet.

#### Benzoic acid and benzoates (sodium benzoate)

This medicinal product contains 5 mg benzoate salt in each mL oral suspension.

Increase in bilirubinaemia following its displacement from albumin may increase neonatal jaundice which may develop into kernicterus (non-conjugated bilirubin deposits in the brain tissue).

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

No interaction studies have been performed for the two oral suspensions of glibenclamide (0.6 mg/mL and 6 mg/mL).

Hypoglycaemia may occur when taking other medicinal products.

Highly protein-bound medicinal products, which may also potentiate the hypoglycaemic action of glibenclamide due to glibenclamide displacement from plasma proteins, include oral anticoagulants, phenytoin, salicylates and other non-steroidal anti-inflammatory agents.

Weakening of the blood-glucose-lowering effect and, thus, raised blood-glucose levels may occur when taking other medicinal products.

Under the influence of sympatholytic medicinal products such as beta-blockers, clonidine, guanethidine, and reserpine, the signs of adrenergic counter-regulation to hypoglycaemia may be reduced or absent. The symptoms of hypoglycaemia may also be milder or absent where hypoglycaemia develops gradually or where there is autonomic neuropathy.

In very rare cases, an intolerance to alcohol may occur. Both acute and chronic alcohol intake, or excessive alcohol ingestion by people who drink occasionally, may attenuate the hypoglycaemic effect of glibenclamide or dangerously potentiate it by delaying its metabolic inactivation. Disulfiram-like reactions have occurred very rarely following the concomitant use of alcohol and glibenclamide.

Glibenclamide may increase ciclosporin plasma concentration and potentially lead to its increased toxicity. Monitoring and dosage adjustment of ciclosporin are therefore recommended when both medicinal products are co-administered.

Colesevelam binds to glibenclamide and reduces glibenclamide absorption from the gastrointestinal tract. No interaction was observed when glibenclamide was taken at least 4 hours before colesevelam. Therefore, glibenclamide should be administered at least 4 hours prior to colesevelam.

Active substance	Effect of interaction	Potential risk
ACE inhibitors	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Acetazolamide	Weakening of the blood-glucose-	Increased blood-glucose levels
	lowering effect	
Adrenaline (epinephrine)	Weakening of the blood-glucose-	Increased blood-glucose levels
and other	lowering effect	
sympathomimetic agents		
Alcohol	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
	Weakening of the blood-glucose-	Increased blood-glucose levels
	lowering effect	
	Attenuate the hypoglycaemic effect of	Incorrect control of plasma
	glibenclamide or dangerously potentiate	glucose
	it by delaying its metabolic inactivation	
Anabolic steroids and	Potentiation of the blood-glucose	Hypoglycaemia
male sex hormones	lowering	
Barbiturates	Weakening of the blood-glucose-	Increased blood-glucose levels
	lowering effect	
Beta-receptor blockers	Potentiation of the blood-glucose	Hypoglycaemia

A summary of the interactions detailed above and further interactions are summarised in the table below.

Active substance	Effect of interaction	Potential risk
	lowering	
	Signs of adrenergic counter-regulation to	Incorrect control of plasma
	hypoglycaemia may be reduced or absent	glucose
Biguanides	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Bosentan	Increase liver enzymes	Incorrect control of plasma
		glucose
Calcium channel	Weakening of the blood-glucose-	Increased blood-glucose levels
blockers	lowering effect	
Chloramphenicol	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Ciclosporin	Increase ciclosporin plasma	Increased toxicity of
	concentration	ciclosporin
Cimetidine	Weakening of the blood-glucose-	Increased blood-glucose levels
	lowering effect	··· ·
Clarithromycin	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	<b>YY</b> 1 ·
Clonidine	Potentiation of the blood-glucose	Hypoglycaemia
	lowering Detertioning and the blood	
	Potentiation or weakening of the blood-	Incorrect control of plasma
	glucose lowering effect	Incompation finance
	Signs of adrenergic counter-regulation to	shoose
	Weakening of the blood glueose	Increased blood glucose levels
	lowering officet	Increased blood-glucose levels
Colosovolom	Paduation of alibonalamida absorption	Incorrect control of plasma
Colesevelain	from the gastrointestinal tract	glucose
Corticosteroids	Weakening of the blood-glucose-	Increased blood-glucose levels
Controlas	lowering effect	increased biood-gracose revers
Coumarin derivatives	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
	Potentiate or weaken the effect of	Incorrect dosage of coumarin
	coumarin derivatives	derivatives administered
Cyclophosphamides	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Diazoxide	Weakening of the blood-glucose-	Increased blood-glucose levels
	lowering effect	
Disopyramide	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Diuretics	Weakening of the blood-glucose-	Increased blood-glucose levels
	lowering effect	
Fenfluramine	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Fenyramidol	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Fibrates	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	··· ·
Fluoxetine	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	· · · · · · · · ·
Glucagon	Weakening of the blood-glucose-	Increased blood-glucose levels
0 4111	lowering effect	YY 1 *
Guanethidine	Potentiation of the blood-glucose	нуродіусаетіа
	lowering	Y , 101
	Signs of adrenergic counter-regulation to	Incorrect control of plasma

Active substance	Effect of interaction	Potential risk
	hypoglycaemia may be reduced or absent	glucose
H2-receptor antagonists	Potentiation or weakening of the blood-	Incorrect control of plasma
	glucose lowering effect	glucose
Heparin	Potentiation of the blood-glucose	Hypoglycaemia
_	lowering	
Ifosfamide	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Insulin	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Isoniazid	Weakening of the blood-glucose-	Increased blood-glucose levels
	lowering effect	
Large doses of laxatives	Weakening of the blood-glucose-	Increased blood-glucose levels
	lowering effect	
Long-acting	Potentiation of the blood-glucose	Hypoglycaemia
sulphonamides	lowering	
MAO inhibitors	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Miconazole	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	· · · · · · · ·
Nicotinic acid (in high	Weakening of the blood-glucose-	Increased blood-glucose levels
doses)	lowering effect	× 111 1 1 1 1
Oestrogens	Weakening of the blood-glucose-	Increased blood-glucose levels
	Iowering effect	11
Other oral antidiabetics	Potentiation of the blood-glucose	Hypoglycaemia
	Iowering Determined and the black above	
Oxypentifylline	Potentiation of the blood-glucose	Hypoglycaemia
Owww.honbutozono	Detention of the blood glucose	Uumaaluaaamia
Oxyphenoutazone	lowering	нуродусаенна
Phenothiazine derivatives	Weakening of the blood-glucose-	Increased blood-glucose levels
Thenothazine derivatives	lowering effect	increased blood glacose levels
Phenytoin	Weakening of the blood-glucose-	Increased blood-glucose levels
	lowering effect	
Phosphamides	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Probenecid	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Progestogens	Weakening of the blood-glucose-	Increased blood-glucose levels
	lowering effect	
Quinolone antibiotics	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Reserpine	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
	Potentiation or weakening of the blood-	Incorrect control of plasma
	glucose lowering effect	glucose
	Signs of adrenergic counter-regulation to	Incorrect control of plasma
	hypoglycaemia may be reduced or absent	glucose
Rifampicin	Weakening of the blood-glucose-	Increased blood-glucose levels
	lowering effect	Y 111 1 1 1 -
Thyroid hormones	Weakening of the blood-glucose-	Increased blood-glucose levels
	Iowering effect	YY 1 '
Sancylates	Potentiation of the blood-glucose	Hypoglycaemia
Culformath 1 '41	Detentiation of the block of the	Harris a lange a state
Suitametnoxazole with	Potentiation of the blood-glucose	пуродіусаетіа

Active substance	Effect of interaction	Potential risk
trimethoprim (Co-	lowering	
trimoxazole)		
Tetracycline compounds	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	
Tritoqualine	Potentiation of the blood-glucose	Hypoglycaemia
	lowering	

#### 4.6 Fertility, pregnancy and lactation

#### General aspects

AMGLIDIA is indicated for the treatment of neonatal diabetes in newborns, infants and children.

# Women of childbearing potential / Contraception

Women of childbearing potential planning a pregnancy should be switched from oral glibenclamide to insulin. Glibenclamide should not be given during pregnancy.

# Pregnancy

Based on a limited amount of published data, the use of glibenclamide during the 1<sup>st</sup> trimester does not seem to cause an increase in congenital malformations. With respect to the 2<sup>nd</sup> and 3<sup>rd</sup> trimester published data did not find fetotoxic effects.

Animal studies do not indicate a teratogenic potential.

Glibenclamide crosses the placenta mostly in small amounts; however, transfer is highly variable among patients.

In pregnant women insulin is recommended for blood sugar control.

#### **Breast-feeding**

Published data from 11 glibenclamide-treated mothers indicate that glibenclamide is not excreted in human milk and hypoglycemia in the breast-fed newborns was not reported. Breast-feeding seems to be compatible, but as a precautious measure monitoring of the fully breast-fed infant's blood sugar level is advisable.

# Fertility

Clinical data are not available.

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

AMGLIDIA has moderate influence on the ability to drive and use machines since glibenclamide may increase the risk of hypoglycaemia. This may not be relevant for the target population. However, reduced alertness may also be of concern when participating in road traffic.

#### 4.8 **Undesirable effects**

#### Summary of the safety profile:

The most frequent adverse reactions are hypoglycemia, transitory diarrhea and abdominal pain. The most serious adverse reaction is hypoglycemia (see section 4.4). Overall, the safety profile of Glibenclamide is in line with the safety profile of others sulfonylureas.

# Tabulated list of adverse reactions

Adverse reactions reported with glibenclamide (oral suspension or crushed tablets) in children, in the frame of treatment of neonatal diabetes are listed below by system organ class and frequency grouping. Frequencies are defined as: very common ( $\geq 1/10$ ); common ( $\geq 1/100$  to < 1/100); uncommon ( $\geq 1/1,000$  to < 1/100); rare ( $\geq 1/10,000$  to < 1/1,000); very rare (< 1/10,000), not known (cannot be estimated from the available data). Within each frequency grouping, adverse reactions are presented in order of decreasing seriousness.

MedDRA system organ class	Adverse reactions	
	Very common	Common
Blood and lymphatic system disorders	Neutropenia	
Metabolism and nutrition disorders	Hypoglycaemia	
Gastrointestinal disorders	Transitory diarrhea	Tooth discoloration
	Abdominal pain	
	Vomiting	
	Dyspepsia	
Investigations	Transitory increased transaminases	

#### Description of selected adverse reactions

The following adverse reactions have been observed in a clinical study (Neogli study). This was a phase II, single-centre, prospective, open-label, non-randomised study. After enrolment, patients continued taking their usual doses of glibenclamide tablets for 1 month. Ten patients were switched to glibenclamide oral suspension and treatment with oral suspension continued for 3 months.

# Hypoglycaemia

Two cases of severe hypoglycaemia were observed, which were considered related to the medicinal product. Symptomatic measures were taken and the situation resolved in the two cases.

#### Transitory diarrhea, vomiting and abdominal pain and dyspepsia

Two children had abdominal pain (one with transient diarrhea and vomiting during the same episode) that were considered related to the medicinal product. Symptomatic measures were taken and the medicinal product continued and the situation resolved in the two cases.

One child had dyspepsia, which was considered related to the medicinal product. Symptomatic measures were taken and the situation resolved.

#### Neutropenia and transitory increased transaminases

One child had punctually low leucocytes level, but close to the normal range (neutrophils  $1.3 \times 10^3/\mu L$  for a lower limit of normal of  $1.5 \times 10^3/\mu L$ ).

The same child had a transient and minimal ASAT 73 IU/L, and ALAT 42 IU/L increased (normal range below 60 and 40 respectively. These resolved subsequently.

In addition undesirable effects gathered from the use in adults is of importance given the small database in children. Those not already mentioned above, which could happen in children as well are listed below.

#### Eye disorders

Transient visual disturbances (blurred vision or accommodation disorder), especially early in treatment, with or without glycaemic variation.

#### Skin and subcutaneous tissue disorders

In isolated cases, photosensitivity may occur.

Skin rash, pruritus, urticaria, allergic skin reaction. Bullous eruptions, exfoliative dermatitis, erythema multiforme have occasionally been reported in adults.

#### Immune system disorders

Anaphylactic reaction including dyspnoea, hypotension and shock.

#### Blood disorders

Blood affections generally reversible when treatment stops.

Hypereosinophilia, leucopenia, mild or severe thrombocytopenia, which can lead to purpura. Rare cases of agranulocytosis, hemolytic anemia, bone marrow aplasia and pancytopenia

#### Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the national reporting system listed in <u>Appendix V</u>.

# 4.9 Overdose

Overdose of sulphonamides can result in hypoglycaemia.

The symptoms of moderate hypoglycaemia, without loss of consciousness or neurological signs, must be completely corrected by taking sugar, adjusting the dose and/or changing dietary behaviour. Close monitoring of blood-glucose by the patient's family must be continued until the family and the physician, if he/she had to be contacted, are certain that the patient is out of danger. Severe hypoglycaemic reactions, with coma, convulsions or other neurological disorders are possible and are medical emergencies requiring immediate treatment as soon as the cause is diagnosed or suspected before immediately admitting the patient to hospital.

If a hypoglycaemic coma is diagnosed or suspected, the patient should quickly receive an intravenous injection of concentrated glucose solution (0.5 g/kg body weight as a 30% glucose solution). This must be followed by continuous infusion of more dilute glucose solution (10%) at the rate needed to maintain blood-glucose above 100 mg/dL (100 mg/dL = 5.5 mmol/L). Patients must be closely monitored for at least 48 hours and, depending on the patient's condition at this time, the physician will decide if additional monitoring is necessary.

Plasma clearance of glibenclamide may be prolonged in patients suffering from liver disease. Due to strong binding of glibenclamide to proteins, dialysis is of no benefit to the patient.

# 5. PHARMACOLOGICAL PROPERTIES

# 5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Drugs used in diabetes, sulphonylureas, ATC code: A10BB01

#### Mechanism of action

Sulphonylureas will act on pancreatic beta-cells by inhibiting ATP-sensitive potassium channels. The mechanisms of action proposed for this effect include stimulation of insulin release by beta-cells of the pancreas.

The minimum active concentration for the effect is considered to be 30-50 ng/mL glibenclamide.

#### Pharmacodynamic effects

Glibenclamide, a second-generation, short half-life sulphonylurea, is a hypoglycaemic agent that reduces blood-glucose by stimulating insulin release by the pancreas; this effect depends on the presence of active beta-cells or beta-cells made active by glibenclamide in the pancreatic islets in certain cases of neonatal diabetes.

Stimulation of insulin secretion by glibenclamide in response to a meal is of major significance. Administering glibenclamide to a diabetic enhances the post-prandial insulinotropic response. Postprandial responses involving secretion of insulin and peptide-C continue to be enhanced after at least 6 months of treatment and even over many years in the case of neonatal diabetes by potassium channel disorders.

Glibenclamide has been shown to be effective in patients with mutations in the genes coding for the  $\beta$ cell ATP-sensitive potassium channel and chromosome 6q24-related transient neonatal diabetes mellitus.

#### Clinical efficacy and safety

Treatment using sulphonylureas in neonatal diabetes linked to potassium channel disorders is supported by published studies showing measurable improvements in glycaemic control and suggesting neuro-psychomotor and neuro-psychological deficiencies, which are greater in younger patients

In a phase II, single-centre, prospective, open-label, non-randomised study, acceptability, efficiency and tolerance of the switch from crushed tablets to suspension were measured. Ten patients (7 boys/3 girls) with KCNJ11 mutation, median age 2.7 years (0.3 to 16.2), median duration of glibenclamide therapy 2.3 years (0.01 to 11.3) were treated.

Daily doses ranged from 0.08 to 0.77 mg/kg for glibenclamide tablets (median dose, 0.25 mg/kg) and from 0.06 to 0.57 mg/kg for oral suspension.

After switching from glibenclamide tablets to glibenclamide oral suspension, there was no deterioration in glycaemic control as evidenced from the similar serum HbA1c (6.48 vs 6.1% at Visits M0 and M4, respectively; p=0.076) and fructosamine (283.4 vs 271.2  $\mu$ mol/L at Visits M0 and M4, respectively; p=0.552) concentrations.

None of patients experienced deterioration in glycaemic control, defined as an increase of HbA1c by > 0.5% and exceeding 5.6% in patients with baseline HbA1c  $\le 5.6\%$  or an increase of HbA1c by > 0.5% in patients with baseline HbA1c > 5.6%.

Doses as high as 2.8 mg/kg/d have been given without undesirable effects and with full transfer off insulin, in the literature.

From a cohort study, 34 selected patients were transferred successfully to sulphonylureas (no insulin during the 12 months after the switch) for more than five years. Data were recorded retrospectively: safety, diabetes complication, sulphonylurea dosage and HbA1C before switch and at last follow-up visit. From the 28 eligible patients, complete data before switch were available for 24 patients and after switch for 17 patients. Median time till sulphonylurea start was 9.32 years (5.8 to 12.15) and median follow-up time 6.6 years (1.4 to 11.5 years). Median age at transfer from insulin to sulphonylurea was 4.9 years (0.23 to 36.5). Median HbA1C before transfer was 7.4% (5.3 to 10.3) and 6.1% (5.1 to 8.1%) at last visit. Median change was -1.4% (-4 to +0.3%), p< 0.001. Median glibenclamide dosage was 0.16 mg/kg/d (0.025 to 0.66) at last visit. No episodes of renal or hepatic failure and no development of retinopathy or nephropathy were reported. Insulin was re-introduced permanently in 1 patient (3 years after sulphonylurea transfer) and transiently in another (1 year after transfer and during 4 years).

A large international long-term term study of treatment for neonatal diabetes due to *KCNJ11* mutations is ongoing and preliminary long-term data are available for 81/91 eligible patients (89%). Median follow-up duration was 10.2 years. 75/81(93%) remained on sulphonylurea alone at most recent follow-up: 6/81(7%) were on sulphonylurea and daily insulin. Those were poor compliant patients, as shown by the mediocre metabolic control on insulin. Glycaemic control was maintained long-term: in patients on sulphonylurea alone, median(IQR) HbA1c pre-transfer to sulphonylurea, at 1-year and at 10-years was 8.0(7.2-9.2)%, 5.9(5.5-6.4)% and 6.3(5.9-7.2)%. Median sulphonylurea dose fell over the period of follow-up (1-year dose 0.28 mg/kg/d and 10-year dose 0.23 mg/kg/d, p=0.01). There were no reported episodes of severe hypoglycaemia. Adverse reactions (diarrhoea/nausea/reduced appetite/abdominal pain) were reported in 10/81(12%); these were transient and no patients discontinued sulphonylurea as a result. Microvascular complications were reported in

7/81(9%) patients; there were no macrovascular complications. Patients with complications were older at age of transfer to SU than those without complications (age at transfer 20.5 v 4.1 years, p=0.0005). OGTT and IVGTT revealed good insulin response to glucose and maintained incretin effect after ten years.

# 5.2 Pharmacokinetic properties

# Absorption

After oral administration, glibenclamide is absorbed rapidly and induces its effect within 2.5 hours with a duration of up to 15 hours, although the elimination half-life is 5 to 10 hours. The food effect on the speed or the level of absorption of glibenclamide oral suspension has not been investigated. Bioavailability studies have demonstrated that nonmicronised tablets provide serum glibenclamide concentrations that are not bioequivalent to those from micronised tablets.

Head to head comparative pharmacokinetic data following the application of glibenclamide suspension and micronised tablets are not available. The conversion rate between micronised tablets and the suspension has not been established.

A comparative study of relative bioavailability between two suspensions of glibenclamide oral suspensions (0.6 mg/mL and 6 mg/mL) and crushed glibenclamide tablets (Daonil 5 mg) showed that when glibenclamide oral suspensions were administered, peak plasma concentrations of glibenclamide are reached 0.5 hours earlier than that observed with the crushed Daonil tablet (median value after administration is 2.5 hours compared to 3 hours). The values for maximum plasma concentrations ( $C_{max}$ ) were similar for the two suspensions (201.71 ± 71.43 ng/mL for the 6 mg/mL suspension and 206.93 ± 67.33 ng/mL for the 0.6 mg/mL suspension). These values were approx. 40% greater than those obtained for the crushed tablet (148.34 ± 46.74 ng/mL).

The exposures were respectively similar for the two glibenclamide oral suspensions, and greater than those observed after administration of crushed Daonil tablets. The relative bioavailability was 121.6% for the 0.6 mg/mL suspension and 114.1% for the 6 mg/mL suspension compared to the crushed Daonil tablets.

Population pharmacokinetic approach was used to compare steady state concentrations following 0.9 mg twice daily in children with body weights between 10 - 30 kg and 1.25 mg twice daily in adults. The plasma glibenclamide levels in the simulated paediatric population were approximately 30%-60% lower than the adult levels. With smaller bodyweight the concentration increased but exceeded the adult plasma levels in minimal extents only for poor metabolizers.

# **Distribution**

Glibenclamide is strongly bound to plasma albumin (99%), which may account for certain drug interactions, but is not easily detached by acidic medicinal products.

# Biotransformation and elimination

Glibenclamide is completely metabolised by the liver into 3 inactive metabolites excreted via bile (60%) and urine (40%); elimination is complete in 45 to 72 hours. Clinical studies appear to suggest that CYP2C9 contributes significantly to glibenclamide metabolism *in vivo*.

Liver failure reduces the metabolism of glibenclamide and therefore significantly slows down its elimination.

Biliary excretion of the metabolites increases in the event of kidney failure, proportionally to the severity of the change in renal function. Kidney failure does not affect its elimination as long as creatinine clearance remains above 30 ml/min.

The elimination half-lives were similar for the two suspensions (almost 8 hours) and a little shorter than those observed with the crushed Daonil tablets.

# 5.3 Preclinical safety data

In repeated dose toxicity studies with oral administration of high doses of glibenclamide, effects on pancreatic beta-cells were observed (enlargement of the islets of Langerhans with irregularly configured islets and reduction in pancreatic  $\beta$ -cell granulation in rats at doses of  $\geq$  30 mg/kg/d, beta-cell exhaustion as indicated by depletion of insulin-containing granules in rabbits at doses of  $\geq$  100 mg/kg/d)."

# 6. PHARMACEUTICAL PARTICULARS

# 6.1 List of excipients

hydroxyethylcellulose lactic acid purified water sodium benzoate (E211) sodium citrate xanthan gum

# 6.2 Incompatibilities

Not applicable.

# 6.3 Shelf life

3 years. <u>After first opening</u> 30 days.

Keep the bottle tightly closed.

# 6.4 Special precautions for storage

Keep the bottle in the outer carton in order to protect from light. For storage conditions after first opening of the medicinal product, see section 6.3.

#### 6.5 Nature and contents of container

Brown glass bottle (type III) with a child-resistant closure (polypropylene screw cap with polyethylene capsule inside) in a carton containing a 1 mL or 5 ml graduated oral syringe of LDPE and polypropylene depending on the presentation prescribed and an adaptor (LDPE) to be plugged on the bottle after opening for the syringe.

The 1 mL oral syringe is thin and small while the 5 mL syringe is thick and long.

#### Pack sizes

One bottle of 30 ml suspension and one oral syringe of 1 mL packed in an individual bag and one syringe adaptor.

One bottle of 30 ml suspension and one oral syringe of 5 mL packed in an individual bag and one syringe adaptor.

# 6.6 Special precautions for disposal and other handling

At the first use, the bottle should be opened by unscrewing the child-resistant closure while pressing downwards. The adaptor should be inserted firmly into the bottle while holding the bottle the right way up. The screw cap should then be replaced on the bottle with the adaptor and not removed during the 30-day use. The screw cap should be retightened in order to push the adaptor well into the bottle.

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

# 7. MARKETING AUTHORISATION HOLDER

AMMTeK 15 rue Béranger 75003 Paris France Tel: + 33 (0)1 58 28 16 80 Fax: + 33 (0)1 58 28 16 90

# 8. MARKETING AUTHORISATION NUMBER(S)

EU/1/18/1279/001 (AMGLIDIA 0.6 mg/mL oral suspension with 1 mL oral syringe) EU/1/18/1279/002 (AMGLIDIA 0.6 mg/mL oral suspension with 5 mL oral syringe) EU/1/18/1279/003 (AMGLIDIA 6 mg/mL oral suspension with 1 mL oral syringe) EU/1/18/1279/004 (AMGLIDIA 6 mg/mL oral suspension with 5 mL oral syringe)

# 9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation:

# 10. DATE OF REVISION OF THE TEXT

Detailed information on this medicinal product is available on the website of the European Medicines Agency <u>http://www.ema.europa.eu</u>.

# ANNEX II

- A. MANUFACTURER(S) RESPONSIBLE FOR BATCH RELEASE
- **B.** CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE
- C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION
- D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT

# A. MANUFACTURER(S) RESPONSIBLE FOR BATCH RELEASE

Name and address of the manufacturer(s) responsible for batch release

Centre Spécialités Pharmaceutiques 76-78 Avenue du midi 63800 Cournon d'Auvergne France

Unither Pharmaceutical Zone d'Activites Tech Espace Avenue Toussaint Catros 33185 Le Haillan FRANCE

The printed package leaflet of the medicinal product must state the name and address of the manufacturer responsible for the release of the concerned batch.

# **B.** CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE

Medicinal product subject to medical prescription.

# C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION

#### • Periodic safety update reports

The requirements for submission of periodic safety update reports for this medicinal product are set out in the list of Union reference dates (EURD list) provided for under Article 107c(7) of Directive 2001/83/EC and any subsequent updates published on the European medicines web-portal.

The marketing authorisation holder shall submit the first periodic safety update report for this product within 6 months following authorisation.

# D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT

# • Risk Management Plan (RMP)

The MAH shall perform the required pharmacovigilance activities and interventions detailed in the agreed RMP presented in Module 1.8.2 of the marketing authorisation and any agreeed subsequent updates of the RMP.

An updated RMP should be submitted:

- At the request of the European Medicines Agency;
- Whenever the risk management system is modified, especially as the result of new

information being received that may lead to a significant change to the benefit/risk profile or as the result of an important (pharmacovigilance or risk minimisation) milestone being reached.

# • Additional risk minimisation measures

Prior to launch of Amglidia in each Member State, the Marketing Authorisation Holder (MAH) must agree the content and format of an educational material for Amglidia, including communication media, distribution modalities, and any other aspects of the programme, with the National Competent Authority.

The educational material is aimed at **increasing awareness about the four presentations available** (two strengths of the product, each containing either a 1mL or a 5mL syringe) and at minimising the risk of hypoglycaemia in case of mix-ups of the different presentations.

The MAH shall ensure that, in each Member State where Amglidia is marketed, all healthcare professionals who are expected to prescribe Amglidia, have access to the following educational guide:

• A Prescriber's Guide, including the SmPC of Amglidia attached

# The Prescriber's Guide shall contain the following key messages:

- Amglidia is a suspension to be administered with a provided oral syringe graduated in mL. Healthcare professionals or patients should never use another syringe than the one provided in the box to avoid dosing errors which could result in serious harm.
- Amglidia is available in four different boxes corresponding to four different presentations (four different strengths):
  - One box for the 0.6 mg/mL strength with one 1mL syringe: yellow colour for outer carton and reverse type yellow colour for label
  - One box for the 0.6 mg/mL strength with one 5 mL syringe: yellow colour for outer carton and reverse type yellow colour for label
  - One box for the 6 mg/mL strength with one syringe of 1 mL: purple colour for outer carton and reverse type purple colour for label
  - One box for the 6 mg/mL strength with one syringe of 5 mL: purple colour for outer carton and reverse type purple colour for label
- The choice of the Amglidia strength should be defined according to the prescribed posology and the patient's body weight.
- The Amglidia 0.6 mg/mL strength should not be used for posology higher than 0.6 mg/kg/day to limit the exposure to the sodium benzoate excipient. Please read the posology and method of administration in the SmPC attached to this prescriber's guide.
- Choice of the syringe to be used:
  - After the total daily dose and the strength to be used have been defined, the frequency of the daily administration should be pointed out and the corresponding volume per administration should be calculated.
  - > Depending on the volume calculated per administration:
    - ✓ If the volume per administration is 1mL or below, the 1mL syringe should be prescribed;

- ✓ If the volume per administration is more than 1mL, the 5mL syringe should be prescribed.
- The prescription should state the calculated daily dose in mL, the strength of Amglidia to be used, the number of administrations over which the daily dose is divided, as well as the volume in mL to be administered for each dose and the size of the syringe to be used.
- Patients and/or their caretakers should be explained that:
  - They are prescribed a dose of Amglidia in mL according to their body weight. This dose is to be administrated with a provided oral syringe graduated in mL.
  - There are 2 presentations for a same strength: one with a syringe of 1mL and one with a syringe of 5 mL.
  - Patients or their caretakers should be reminded to use the correct syringe as stated in their prescription.
- If the patient is prescribed a different presentation, the prescriber should highlight to the patient the packaging differences between the different presentations (focus on colour differentiation, warning statements on carton, thickness and length of the provided syringe).

ANNEX III

LABELLING AND PACKAGE LEAFLET

A. LABELLING

# PARTICULARS TO APPEAR ON THE OUTER PACKAGING

# **OUTER CARTON**

# 1. NAME OF THE MEDICINAL PRODUCT

AMGLIDIA 0.6 mg/mL oral suspension AMGLIDIA 6 mg/mL oral suspension glibenclamide

# 2. STATEMENT OF ACTIVE SUBSTANCE(S)

Each mL contains 0.6 mg glibenclamide. Each mL contains 6 mg glibenclamide.

# 3. LIST OF EXCIPIENTS

Contains sodium and benzoate, see leaflet for further information.

# 4. PHARMACEUTICAL FORM AND CONTENTS

Oral suspension. 1 x 30 mL bottle.

1 oral syringe (1 mL) 1 oral syringe (5 mL) 1 syringe adaptor.

# 5. METHOD AND ROUTE(S) OF ADMINISTRATION

Read the package leaflet before use. Oral use.

#### 6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN

Keep out of the sight and reach of children.

# 7. OTHER SPECIAL WARNING(S), IF NECESSARY

You should only use the syringe which has been prescribed by your doctor.

Make sure you have the box containing the syringe size prescribed by your doctor.

If a new presentation of Amglidia is prescribed by your doctor, return back your previous presentation and syringe to your pharmacist to avoid mixing up of the syringes.

# 8. EXPIRY DATE

#### EXP {MM/YYYY}

After opening, keep the bottle tightly closed after each use and stored for a maximum of 30 days.

# 9. SPECIAL STORAGE CONDITIONS

Keep the bottle in the outer carton in order to protect from the light.

# 10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE

# 11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

AMMTeK 15 rue Béranger 75003 Paris France

# **12. MARKETING AUTHORISATION NUMBER(S)**

EU/1/18/1279/001 (AMGLIDIA 0.6 mg/mL oral suspension with 1 mL oral syringe) EU/1/18/1279/002 (AMGLIDIA 0.6 mg/mL oral suspension with 5 mL oral syringe) EU/1/18/1279/003 (AMGLIDIA 6 mg/mL oral suspension with 1 mL oral syringe) EU/1/18/1279/004 (AMGLIDIA 6 mg/mL oral suspension with 5 mL oral syringe)

# **13. BATCH NUMBER**

Lot

# 14. GENERAL CLASSIFICATION FOR SUPPLY

# 15. INSTRUCTIONS ON USE

# **16. INFORMATION IN BRAILLE**

AMGLIDIA 0.6 mg/mL AMGLIDIA 6 mg/mL

#### **17. UNIQUE IDENTIFIER – 2D BARCODE**

2D barcode carrying the unique identifier included.

#### 18. UNIQUE IDENTIFIER - HUMAN READABLE DATA

PC:
SN:
NN:

# MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS BOTTLE

# 1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION

AMGLIDIA 0.6 mg/mL oral suspension AMGLIDIA 6 mg/mL oral suspension glibenclamide Oral use

# 2. METHOD OF ADMINISTRATION

Read the package leaflet before use.

# 3. EXPIRY DATE

EXP

# 4. **BATCH NUMBER**

Lot

# 5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT

30 mL

# 6. OTHER

**B. PACKAGE LEAFLET** 

# Package leaflet: Information for the user

# AMGLIDIA 6 mg/mL oral suspension glibenclamide

# Read all of this leaflet carefully before you start taking this medicine because it contains important information for you.

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for your child only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as those of your child.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

# What is in this leaflet

- 1. What AMGLIDIA is and what it is used for
- 2. What you need to know before you give AMGLIDIA
- 3. How to give AMGLIDIA
- 4. Possible side effects
- 5. How to store AMGLIDIA
- 6. Contents of the pack and other information

# 1. What AMGLIDIA is and what it is used for

AMGLIDIA contains the active substance called glibenclamide which belongs to a group of medicines called sulphonylureas used for lowering blood sugar (blood-glucose).

AMGLIDIA is used in newborn babies, infants and children to treat diabetes that occurs at birth (known as neonatal diabetes mellitus). Neonatal diabetes is a disease where the child's body does not release enough insulin to control the level of blood sugar; AMGLIDIA is used only in patients who still have some ability to make insulin.

Sulphonylureas like glibenclamide have been shown to be effective in certain genetic mutations responsible for the genesis of neonatal diabetes.

This medicine is an oral suspension, to be taken by mouth, which is a more convenient treatment for newborns and young children compared to regular injections of insulin.

You must talk to a doctor if your child does not feel better or if he/she feels worse after a few days.

# 2. What you need to know before you give AMGLIDIA

#### Do not give AMGLIDIA

- if your child is allergic to glibenclamide or any of the other ingredients of this medicine (listed in section 6).
- if your child has ketoacidosis (high blood levels of acid substances called ketones).
- if your child suffers from porphyria (inability to break down body chemicals called porphyrins).
- if your child is treated with bosentan, e.g. a medicine used to treat problems of blood circulation.
- if your child suffers from severe renal dysfunction.
- if your child suffers from severe liver dysfunction.

# Warnings and precautions

Talk to your doctor before your child is given AMGLIDIA.

Your child's blood sugar levels may become too low (hypoglycaemia) after taking AMGLIDIA. Tell the doctor if your child is pale, sweating, has irregular heart rhythm or seems disoriented, confused or unresponsive.

Ask your doctor to determine at which frequency capillary blood sugar should be checked.

G6PD is an enzyme evolved in sugar metabolism. If your child carries a G6PD enzyme deficiency, he/she may experiment an abnormal breakdown of red blood cells (acute haemolytic anaemia) after taking AMGLIDIA.

Tell the doctor if you know that your child is affected by G6PD deficiency and contact him/her if you notice that your child is pale as compared to usually.

Tell your doctor if your child suffers from renal or liver disorders.

#### Children and adolescents

AMGLIDIA is to be used for newborns, infants and children. Adolescents are not in need of this oral suspension formulation.

# Other medicines and AMGLIDIA

Tell your child's doctor or pharmacist if your child is taking, has recently taken or might take any other medicines.

Interactions of AMGLIDIA with other medicines are presented in the table below:

Medicines	Potential effects
ACE inhibitors (used to treat hypertension)	Blood sugar levels too low
(such as captopril and enalapril)	
Acetazolamide (used to treat glaucoma)	Increased blood sugar levels
Adrenaline (epinephrine) and other	Increased blood sugar levels
sympathomimetic agents (used to treat	
serious allergic reaction, cardiovascular	
arrest, asthma)	
Alcohol (Alcohol present in medicines)	Blood sugar levels too low
	Increased blood sugar levels
	Incorrect control of plasma sugar
Anabolic steroids and male sex hormones	Blood sugar levels too low
(such as testosterone enanthate) (used to treat	
testosterone deficiency)	
Barbiturates (such as phenobarbital used to	Increased blood sugar levels
treat epilepsy)	
Beta-receptor blockers (such as propranolol	Blood sugar levels too low
used to treat high blood pressure, control	Incorrect control of plasma sugar
irregular or fast heart beats, help prevent	low blood sugar levels may be hidden
additional heart attack)	
Biguanides (such as metformin) used to treat	Blood sugar levels too low
diabetes mellitus	
Bosentan used to treat high blood pressure in	Incorrect control of plasma sugar (see section 2 "Do
the blood vessels between the heart and the	not give AMGLIDIA")
lungs.	
Calcium channel blockers (such as nifedipine	Increased blood sugar levels
used to treat high blood pressure)	
Chloramphenicol (in case of oral route) is an	Blood sugar levels too low
antibiotic used to treat infections	
Ciclosporin used to prevent rejection of the	Increased toxicity of ciclosporin

Medicines	Potential effects
transplanted organ	
Cimetidine used to relieve the symptoms of	Increased blood sugar levels
stomach and duodenal ulcers, oesophageal	
reflux disease and the Zollinger-Ellison	
syndrome	
Clarithromycin is an antibiotic used to treat	Blood sugar levels too low
certain infections	
Clonidine used to treat arterial hypertension	Blood sugar levels too low
	Incorrect control of plasma sugar
	Incorrect control of plasma sugar
	Increased blood sugar levels
Colesevelam used to lower cholesterol	Incorrect control of plasma sugar
Corticosteroids (such as prednisone,	Increased blood sugar levels
prednisolone) used in various indications	
such as inflammation and asthma	
Coumarin derivatives (such as dicoumarol,	Blood sugar levels too low
acenocoumarol) used to decrease the clotting	Incorrect dosage of coumarin derivatives
Customboor bound to treat different	Dia damar lavala ta a lava
Cyclophosphamides used to treat different	Blood sugar levels too low
Diazovida usad for low blood sugar	Increased blood sugar levels
Disopyramide used to treat an irregularity in	Blood sugar levels too low
the heartheat	blood sugar levels too low
Divertics (such as furosemide	Increased blood sugar levels
hydrochlorothiazide) used to treat arterial	increased blood sugar revers
hypertension	
Fibrates (such as bezafibrate, fenofibrate,	Blood sugar levels too low
gemfibrozil used to lower the level of fats)	
Fluoxetine used to treat depression and	Blood sugar levels too low
anxiety disorders	C C
Glucagon used to treat high blood-glucose	Increased blood sugar levels
level	
Guanethidine used to treat high blood	Blood sugar levels too low
pressure	Incorrect control of plasma sugar
H2-receptor antagonists used for reducing	Incorrect control of plasma sugar
stomach acid (such as ranitidine) to relieve	
the symptoms of stomach and duodenal	
ulcers, oesophageal reflux disease and the	
Zollinger-Ellison syndrome	
Heparin used to decrease the clotting ability	Blood sugar levels too low
If a famile used to treat different types of	Diand sugger levels too low
concers	Blood sugar levels too low
Insulin used to lower blood sugar level	Blood sugar levels too low
Isoniazid used to treat tuberculosis	Increased blood sugar levels
I arge doses of layatives (such as macrogol)	Increased blood sugar levels
MAO inhibitors (such as inroniazide) used to	Blood sugar levels too low
treat depression	
Miconazole used to treat fungal infection	Blood sugar levels too low
Nicotinic acid (in high doses) used to	Increased blood sugar levels
decrease high levels of cholesterol and	
triglycerides which are fat-like substances in	
the blood	
Oestrogens (such as 17-beta oestradiol) used	Increased blood sugar levels

Medicines	Potential effects
for hormonal treatment	
Other oral antidiabetics (such as metformin)	Blood sugar levels too low
used to lower blood-glucose level	
Oxypentifylline used to improve peripheral	Blood sugar levels too low
blood flow	
Phenothiazine derivatives (such as	Increased blood sugar levels
chlorpromazine) used to treat schizophrenia	
and other psychoses	
Phenytoin used to treat epilepsy	Increased blood sugar levels
Probenecid used to treat gout, gouty arthritis	Blood sugar levels too low
Progestogens (such as desogestrel,	Increased blood sugar levels
dydrogesterone) used for hormonal treatment	
Quinolone antibiotics (such as nalidixic acid	Blood sugar levels too low
and ciprofloxacine) used to treat infections	
Rifampicin used to treat infections including	Increased blood sugar levels
tuberculosis	
Sulfamethoxazole with trimethoprim (Co-	Blood sugar levels too low
trimoxazole) used to treat infections	
Thyroid hormones (such as L-thyroxin) used	Increased blood sugar levels
for hormonal treatment	
Salicylates (such as aminosalicylic acid,	Blood sugar levels too low
para-aminosalicylic acid used for	
tuberculosis)	
Tetracycline antibiotics (such as doxycycline	Blood sugar levels too low
and minocycline) used to treat infections	

Tell your doctor or pharmacist if your child is taking, has recently taken or might take any other medicines.

# **AMGLIDIA** with alcohol

Both acute and chronic alcohol intake may attenuate the hypoglycaemic effect of glibenclamide or dangerously potentiate it by delaying its metabolic inactivation. Nausea, vomiting, flushing, dizziness, headache, chest and abdominal discomfort, and general hangover-like symptoms among others have occurred following the concomitant use of alcohol and glibenclamide. Concomitant use of alcohol and glibenclamide should be avoided.

# **Pregnancy and breast-feeding**

This medicine may only be used for the treatment of neonatal diabetes in newborns, infants and children.

This medicine is not intended to be used in pregnant women and patients planning a pregnancy should inform their doctor. It is recommended that such patients change treatment to insulin.

Breast-feeding seems to be compatible, but as a precautious measure monitoring of the fully breast-fed infant's blood sugar level is advisable.

#### **Driving and using machines**

Glibenclamide may increase the risk of low blood sugar and therefore have a moderate influence on the ability to drive, to take part in road traffic otherwise or use machines.

#### AMGLIDIA contains sodium and benzoate salt

This medicine contains 2.80 mg of sodium per mL. To be taken into consideration by patients on a controlled sodium diet.

This medicine contains 5 mg benzoate salt in each mL oral suspension. Benzoate salt may increase jaundice (yellowing of the skin and eyes) in newborn babies (up to 4 weeks old).

# 3. How to give AMGLIDIA

Always use this medicine exactly as your doctor or pharmacist has told you. Check with your doctor or pharmacist if you are not sure.

#### Dosage

Glibenclamide therapy should be started by a doctor experienced in the treatment of patients with very early onset diabetes.

The dose of AMGLIDIA depends on your child's body weight, and will be calculated by the doctor as an amount (volume) in mL oral suspension to be measured with the oral syringe (either an 1 mL or a 5 mL syringe) supplied with the medicine. Your doctor will prescribe the specific presentation and strength including the particular syringe you should use. Do not use any other syringe to administer AMGLIDIA.

It is important you do not adjust yourself the doses of either AMGLIDIA or insulin, unless specifically directed to do so by your child's doctor.

Make sure that you use correct strength of the medicine and the appropriate oral syringe prescribed by your doctor to avoid accidental administration of too high or too low amounts.

The starting dose of AMGLIDIA is 0.2 mg of glibenclamide for each kilogram (kg) of body weight daily, divided in two doses of 0.1 mg/kg. As the dose is increased, it is usually possible to reduce and then stop the dose of insulin the patient is already receiving.

Higher doses of AMGLIDIA can be given as needed, based on blood-glucose monitoring, as per titration recommendations given by the referring doctor.

In case of minor vomiting, an antivomiting medicine will be prescribed by your doctor and AMGLIDIA can be continued.

As generally recommended in such situations, if vomiting occurs less than 30 minutes following administration of AMGLIDIA, a new dose can be given. If vomiting occurs more than 30 minutes following administration of AMGLIDIA, no new dose should be given. Always ask your child's doctor for advice in such circumstances.

In case of major vomiting, ketonemia and ketonuria should be closely monitored by the treating doctor. The doctor may start insulin therapy again, when ketonemia or ketonuria were found to be responsible for the major vomiting. In case of inability of food or beverage intake, the child should go to emergency department to get an insulin and glucose perfusion until vomiting stops.

#### Method of administration

Always give the medicine 15 minutes before feeding. The medicine should be given at the same times each day.

In case of breast-feeding, recommendation is given to administer the suspension 15 minutes before child's milk feeding.

This medicine is a ready-for-use oral suspension to be given with a marked oral syringe. Only the oral syringe included in the carton should be used.

The 1 mL syringe is thin and small and graduated in steps of 0.05 mL. The 5 mL syringe is thick and long and graduated in steps of 0.1 mL.

#### Instructions for use

The dose is measured by drawing the plunger of the syringe back until it reaches the marking for the dose the doctor has prescribed for your child. This dose can be repeated, if necessary, after 6 hours, without exceeding 4 doses per day, as a general rule.

While the child is awake, position the child in half-sitting position in the hollow of your arm, with the child's head resting on your arm.

Slip about the first 1 cm of the syringe into the child's mouth and place it against the inside cheek; Let the child suck. If the child does not suck, slowly press the plunger of the syringe so that the suspension trickles into the mouth.

Do not lay the child down directly after administration. It is recommended to wait for the child has swallowed the medicine before reverting back to lying position.

#### For first use

1. Open the bottle by unscrewing the child-resistant closure while pressing downwards.



- 2. Insert the adaptor firmly into the bottle while holding the bottle the right way up.
- 3. Replace the screw cap on the bottle with the adaptor.
- 4. Retighten the screw cap to push the adaptor well into the bottle.

#### For each administration

- 1. The bottle does not need to be shaken before administration. The medicine is administered as a ready-made oral suspension to be given using a specific marked syringe.
- 2. Open the bottle by unscrewing the child-resistant closure while pressing downwards (figure 1).
- 3. Holding the bottle the right way up, insert the syringe firmly into the adaptor fitted to the bottle (figure 2).
- 4. Turn the bottle with the syringe upside down (figure 3).
- 5. Draw back the plunger to obtain the desired volume (figure 4A). Then push the plunger to remove as many air bubbles as possible from the syringe (figure 4B). Finally, draw back the plunger until graduation corresponding to the prescribed dose in mL (figure 4C). *Note: if air gets into the syringe, empty the syringe into the bottle and start the procedure again.*
- 6. Turn the bottle with the syringe into its upright position.
- 7. Remove the syringe from the adaptor. Put the syringe into the child mouth and push the plunger to slowly administer the medicine into the mouth.
- Close the bottle by tightening the screw cap well on top of the adaptor.
  The bottle must be closed after each use and stored for a maximum of 30 days.
- 9. The syringe must be rinsed thoroughly with water, wiped dry after each use and replaced back into the medicine's carton. The oral syringe in the carton should be used only with this medicine.



# If you give more AMGLIDIA to your child than you should See your doctor, nurse or your hospital pharmacist immediately.

There is a risk of hypoglycaemia. You should check capillary blood sugar of your child and follow the instructions described in section 4.

# If you forget to give AMGLIDIA

If you forget to give AMGLIDIA, there is a risk of high blood sugar.

You must check your child's blood sugar (capillary blood sugar) and give AMGLIDIA as soon as you realise you have forgotten to use it. If your child's capillary blood sugar exceeds 3 g/L (or 300 mg/dL or 16.5 mmol/L), check for the presence of ketonuria with a finger stick or urine stick tests according to your child's doctor recommendations. If ketonuria is detected, you must inject insulin immediately according to the procedure defined beforehand with your child's doctor and contact him/her or his/her team for advice.

Do not give a double dose to make up for a forgotten dose.

# If you stop giving AMGLIDIA

There is a risk of high blood sugar.

You should check your child's blood sugar (capillary blood sugar). Diabetes symptoms may reappear and may lead to a serious disturbance of the body's metabolism with high blood levels of ketones (ketoacidosis), dehydration and disturbance of the balance of acids in the body. You should therefore never stop the medicine without checking with the doctor looking after your child. Seek advice from your doctor.

You will be requested to bring back remaining AMGLIDIA oral suspension to your doctor at each consultation.

If you have any further questions on the use of this medicine, ask the doctor of your child or pharmacist.

#### 4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them.

#### Serious side effects

**Too low blood sugar (hypoglycaemia)** (very common: may affect more than 1 in 10 people) If you take AMGLIDIA, you are at risk of getting too low blood sugar (hypoglycaemia). The signs of too low blood sugar may include:

- shaking, sweating, feeling very anxious or confused, fast heart beat
- excessive hunger, headache

If your child starts to become pale, sweating, has irregular heart rhythm or seems disoriented, confused or unresponsive, these may be signs that the child's blood sugar is too low; you should first solve the situation as explained below and you should then talk to your child's doctor to adapt AMGLIDIA's dose.

The risk of low blood sugar is increased if the medicine is not taken with a meal, is taken with alcohol, or if combined with certain medicines. Such low blood sugar should be managed by taking sugar by mouth followed by a snack or meal. If very low blood sugar occurs that affects consciousness, emergency services should be called and an intravenous glucose injection performed. After such a severe episode of hypoglycaemia, the child and family should see the child's doctor to check the appropriateness of the dose of glibenclamide suspension.

#### Allergic reactions

This medicine may cause allergic reactions, which may be serious in isolated cases, including difficulties to breath, low blood pressure and shock. If your child presents any of theses symptoms, you should immediately go to the nearest emergency department.

Gastro intestinal disorders (very common: may affect more than 1 in 10 people):

- Diarrhea
- Abdominal (belly) pain
- Vomiting
- Stomach ache (Dyspepsia)

Teeth problems (common: may affect up to 1 in 10 people):

- Tooth discoloration.

**Abnormal blood test results** (very common: may affect more than 1 in 10 people) Laboratory blood tests may show changes in blood cells (decrease in white blood cells: leucopenia) and effects on liver function (brief increase in enzymes called transaminases).

# Other side effects:

Tell your doctor or pharmacist if you notice any of the following side effects:

- Skin rash: itching, nettle rash (urticarial), allergic skin reaction, blistering of the skin, skin inflammation.
- Increase in sensitivity of the skin to sunlight.
- Transient visual disturbances.
- Other laboratory blood tests changes: increased levels of the white blood cells called eosinophils (hypereosinophilia), mild to severe decrease in blood components called platelets (thrombocytopenia) which can lead to subcutaneous bleeding (purpura).

# **Reporting of side effects**

If you notice any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via the national reporting system listed in <u>Appendix V</u>. By reporting side effects, you can help provide more information on the safety of this medicine.

# 5. How to store AMGLIDIA

Keep this medicine out of the sight and reach of children.

Do not use this medicine after the expiry date which is stated on the carton and bottle after EXP. The expiry date refers to the last day of that month.

Keep the bottle in the outer carton in order to protect from light.

After first opening, use within 30 days. Keep the bottle tightly closed.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

# 6. Contents of the pack and other information

# What AMGLIDIA contains

- The active substance is glibenclamide. Each mL contains 6 mg glibenclamide.
- The other ingredients are: xanthan gum, hydroxyethylcellulose, lactic acid, purified water sodium citrate and sodium benzoate (E211) (see section 2 "AMGLIDIA contains sodium and benzoate").

# What AMGLIDIA looks like and contents of the pack

AMGLIDIA is a white and odourless oral suspension. Each carton contains:

- 1 bottle containing 30 mL oral suspension
- one 1 mL oral syringe (thin and small) or one 5 mL oral syringe (thick and long) depending on
- the prescribed dose and the volume to be given. The syringe is packed in a transparent bag.one syringe adaptor.

# **Marketing Authorisation Holder**

AMMTek 15 rue Béranger 75003 Paris France

# Manufacturer

Unither Développement Bordeaux ZA Tech-Espace, Avenue Toussaint-Catros 33185 Le Haillan France

Centre Spécialités Pharmaceutiques 76-78 Avenue du midi 63800 Cournon d'Auvergne France

This leaflet was last revised in {MM/YYYY}.

# Other sources of information

Detailed information on this medicine is available on the European Medicines Agency web site: <u>http://www.ema.europa.eu</u>. There are also links to other websites about rare diseases and treatments.

# Package leaflet: Information for the user

# AMGLIDIA 0.6 mg/mL oral suspension glibenclamide

# Read all of this leaflet carefully before you start taking this medicine because it contains important information for you.

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor or pharmacist.
- This medicine has been prescribed for your child only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as those of your child.
- If you get any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. See section 4.

# What is in this leaflet

- 1. What AMGLIDIA is and what it is used for
- 2. What you need to know before you give AMGLIDIA
- 3. How to give AMGLIDIA
- 4. Possible side effects
- 5. How to store AMGLIDIA
- 6. Contents of the pack and other information

# 1. What AMGLIDIA is and what it is used for

AMGLIDIA contains the active substance called glibenclamide which belongs to a group of medicines called sulphonylureas used for lowering blood sugar (blood-glucose).

AMGLIDIA is used in newborn babies, infants and children to treat diabetes that occurs at birth (known as neonatal diabetes mellitus). Neonatal diabetes is a disease where the child's body does not release enough insulin to control the level of blood sugar; AMGLIDIA is used only in patients who still have some ability to make insulin.

Sulphonylureas like glibenclamide have been shown to be effective in certain genetic mutations responsible for the genesis of neonatal diabetes.

This medicine is an oral suspension, to be taken by mouth, which is a more convenient treatment for newborns and young children compared to regular injections of insulin.

You must talk to a doctor if your child does not feel better or if he/she feels worse after a few days.

# 2. What you need to know before you give AMGLIDIA

#### Do not give AMGLIDIA

- if your child is allergic to glibenclamide or any of the other ingredients of this medicine (listed in section 6).
- if your child has ketoacidosis (high blood levels of acid substances called ketones).
- if your child suffers from porphyria (inability to break down body chemicals called porphyrins).
- if your child is treated with bosentan, e.g. a medicine used to treat problems of blood circulation.
- if your child suffers from severe renal dysfunction.
- if your child suffers from severe liver dysfunction.

# Warnings and precautions

Talk to your doctor before your child is given AMGLIDIA.

Your child's blood sugar levels may become too low (hypoglycaemia) after taking AMGLIDIA. Tell the doctor if your child is pale, sweating, has irregular heart rhythm or seems disoriented, confused or unresponsive..

Ask your doctor to determine at which frequency capillary blood sugar should be checked.

G6PD is an enzyme evolved in sugar metabolism. If your child carries a G6PD enzyme deficiency, he/she may experiment an abnormal breakdown of red blood cells (acute haemolytic anaemia) after taking AMGLIDIA.

Tell the doctor if you know that your child is affected by G6PD deficiency and contact him/her if you notice that your child is pale as compared to usually.

Tell your doctor if your child suffers from renal or liver disorders.

#### **Children and adolescents**

AMGLIDIA is to be used for newborns, infants and children. Adolescents are not in need of this oral suspension formulation.

# Other medicines and AMGLIDIA

Tell your child's doctor or pharmacist if your child is taking, has recently taken or might take any other medicines.

Interactions of AMGLIDIA with other medicines are presented in the table below:

Medicines	Potential effects
ACE inhibitors (used to treat hypertension)	Blood sugar levels too low
(such as captopril and enalapril)	
Acetazolamide (used to treat glaucoma)	Increased blood sugar levels
Adrenaline (epinephrine) and other	Increased blood sugar levels
sympathomimetic agents (used to treat	
serious allergic reaction, cardiovascular	
arrest, asthma)	
Alcohol (Alcohol present in medicines)	Blood sugar levels too low
	Increased blood sugar levels
	Incorrect control of plasma sugar
Anabolic steroids and male sex hormones	Blood sugar levels too low
(such as testosterone enanthate) (used to treat	
testosterone deficiency)	
Barbiturates (such as phenobarbital used to	Increased blood sugar levels
treat epilepsy)	
Beta-receptor blockers (such as propranolol	Blood sugar levels too low
used to treat high blood pressure, control	Incorrect control of plasma sugar
irregular or fast heart beats, help prevent	low blood sugar levels may be hidden
additional heart attack)	
Biguanides (such as metformin) used to treat	Blood sugar levels too low
diabetes mellitus	
Bosentan used to treat high blood pressure in	Incorrect control of plasma sugar (see section 2 "Do
the blood vessels between the heart and the	not give AMGLIDIA")
lungs.	
Calcium channel blockers (such as nifedipine	Increased blood sugar levels
used to treat high blood pressure)	
Chloramphenicol (in case of oral route) is an	Blood sugar levels too low
antibiotic used to treat infections	
Ciclosporin used to prevent rejection of the	Increased toxicity of ciclosporin

Medicines	Potential effects
transplanted organ	
Cimetidine used to relieve the symptoms of	Increased blood sugar levels
stomach and duodenal ulcers, oesophageal	
reflux disease and the Zollinger-Ellison	
syndrome	
Clarithromycin is an antibiotic used to treat	Blood sugar levels too low
certain infections	
Clonidine used to treat arterial hypertension	Blood sugar levels too low
	Incorrect control of plasma sugar
	Incorrect control of plasma sugar
	Increased blood sugar levels
Colesevelam used to lower cholesterol	Incorrect control of plasma sugar
Corticosteroids (such as prednisone,	Increased blood sugar levels
prednisolone) used in various indications	
such as inflammation and asthma	
Coumarin derivatives (such as dicoumarol,	Blood sugar levels too low
acenocoumarol) used to decrease the clotting	Incorrect dosage of coumarin derivatives
ability of the blood	administered
Cyclophosphamides used to treat different	Blood sugar levels too low
Diazovida usad for low blood sugar	Increased blood sugar levels
Disopyramide, used to treat an irregularity in	Blood sugar levels too low
the heartheat	blood sugar levels too low
Divertics (such as furosemide	Increased blood sugar levels
hydrochlorothiazide) used to treat arterial	increased blood sugar revers
hypertension	
Fibrates (such as bezafibrate, fenofibrate,	Blood sugar levels too low
gemfibrozil used to lower the level of fats)	6
Fluoxetine used to treat depression and	Blood sugar levels too low
anxiety disorders	Ũ
Glucagon used to treat high blood-glucose	Increased blood sugar levels
level	
Guanethidine used to treat high blood	Blood sugar levels too low
pressure	Incorrect control of plasma sugar
H2-receptor antagonists used for reducing	Incorrect control of plasma sugar
stomach acid (such as ranitidine) to relieve	
the symptoms of stomach and duodenal	
ulcers, oesophageal reflux disease and the	
Zollinger-Ellison syndrome	
Heparin used to decrease the clotting ability	Blood sugar levels too low
If a family used to treat different types of	Dlood august laught too louy
cancers	Blood sugar levels too low
Insulin used to lower blood sugar level	Blood sugar levels too low
Isoniazid used to treat tuberculosis	Increased blood sugar levels
I arge doses of layatives (such as macrogol)	Increased blood sugar levels
MAO inhibitors (such as inroniazide) used to	Blood sugar levels too low
treat depression	blood sugar levels too low
Miconazole used to treat fungal infection	Blood sugar levels too low
Nicotinic acid (in high doses) used to	Increased blood sugar levels
decrease high levels of cholesterol and	
triglycerides which are fat-like substances in	
the blood	
Oestrogens (such as 17-beta oestradiol) used	Increased blood sugar levels

Medicines	Potential effects
for hormonal treatment	
Other oral antidiabetics (such as metformin)	Blood sugar levels too low
used to lower blood-glucose level	
Oxypentifylline used to improve peripheral	Blood sugar levels too low
blood flow	
Phenothiazine derivatives (such as	Increased blood sugar levels
chlorpromazine) used to treat schizophrenia	
and other psychoses	
Phenytoin used to treat epilepsy	Increased blood sugar levels
Probenecid used to treat gout, gouty arthritis	Blood sugar levels too low
Progestogens (such as desogestrel,	Increased blood sugar levels
dydrogesterone) used for hormonal treatment	
Quinolone antibiotics (such as nalidixic acid	Blood sugar levels too low
and ciprofloxacine) used to treat infections	
Rifampicin used to treat infections including	Increased blood sugar levels
tuberculosis	
Sulfamethoxazole with trimethoprim (Co-	Blood sugar levels too low
trimoxazole) used to treat infections	
Thyroid hormones (such as L-thyroxin) used	Increased blood sugar levels
for hormonal treatment	
Salicylates (such as aminosalicylic acid,	Blood sugar levels too low
para-aminosalicylic acid used for	
tuberculosis)	
Tetracycline antibiotics (such as doxycycline	Blood sugar levels too low
and minocycline) used to treat infections	

Tell your doctor or pharmacist if your child is taking, has recently taken or might take any other medicines.

# **AMGLIDIA** with alcohol

Both acute and chronic alcohol intake may attenuate the hypoglycaemic effect of glibenclamide or dangerously potentiate it by delaying its metabolic inactivation. Nausea, vomiting, flushing, dizziness, headache, chest and abdominal discomfort, and general hangover-like symptoms among others have occurred following the concomitant use of alcohol and glibenclamide. Concomitant use of alcohol and glibenclamide should be avoided.

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This medicine may only be used for the treatment of neonatal diabetes in newborns, infants and children.

This medicine is not intended to be used in pregnant women and patients planning a pregnancy should inform their doctor. It is recommended that such patients change treatment to insulin.

Breast-feeding seems to be compatible, but as a precautious measure monitoring of the fully breast-fed infant's blood sugar level is advisable.

#### **Driving and using machines**

Glibenclamide may increase the risk of low blood sugar and therefore have a moderate influence on the ability to drive, to take part in road traffic otherwise or use machines.

# AMGLIDIA contains sodium and benzoate salt

This medicine contains 2.80 mg of sodium per mL. To be taken into consideration by patients on a controlled sodium diet.

This medicine contains 5 mg benzoate salt in each mL oral suspension. Benzoate salt may increase jaundice (yellowing of the skin and eyes) in newborn babies (up to 4 weeks old).

# 3. How to give AMGLIDIA

Always use this medicine exactly as your doctor or pharmacist has told you. Check with your doctor or pharmacist if you are not sure.

#### Dosage

Glibenclamide therapy should be started by a doctor experienced in the treatment of patients with very early onset diabetes.

The dose of AMGLIDIA depends on your child's body weight, and will be calculated by the doctor as an amount (volume) in mL oral suspension to be measured with the oral syringe (either an 1 mL or a 5 mL syringe) supplied with the medicine. Your doctor will prescribe the specific presentation and strength including the particular syringe you should use. Do not use any other syringe to administer AMGLIDIA.

It is important you do not adjust yourself the doses of either AMGLIDIA or insulin, unless specifically directed to do so by your child's doctor.

Make sure that you use correct strength of the medicine and the appropriate oral syringe prescribed by your doctor to avoid accidental administration of too high or too low amounts.

The starting dose of AMGLIDIA is 0.2 mg of glibenclamide for each kilogram (kg) of body weight daily, divided in two doses of 0.1 mg/kg. As the dose is increased, it is usually possible to reduce and then stop the dose of insulin the patient is already receiving.

Higher doses of AMGLIDIA can be given as needed, based on blood-glucose monitoring, as per titration recommendations given by the referring doctor.

In case of minor vomiting, an antivomiting medicine will be prescribed by your doctor and AMGLIDIA can be continued.

As generally recommended in such situations, if vomiting occurs less than 30 minutes following administration of AMGLIDIA, a new dose can be given. If vomiting occurs more than 30 minutes following administration of AMGLIDIA, no new dose should be given. Always ask your child's doctor for advice in such circumstances.

In case of major vomiting, ketonemia and ketonuria should be closely monitored by the treating doctor. The doctor may start insulin therapy again, when ketonemia or ketonuria were found to be responsible for the major vomiting. In case of inability of food or beverage intake, the child should go to emergency department to get an insulin and glucose perfusion until vomiting stops.

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Always give the medicine 15 minutes before feeding. The medicine should be given at the same times each day.

In case of breast-feeding, recommendation is given to administer the suspension 15 minutes before child's milk feeding.

This medicine is a ready-for-use oral suspension to be given with a marked oral syringe. Only the oral syringe included in the carton should be used.

The 1 mL syringe is thin and small and graduated in steps of 0.05 mL. The 5 mL syringe is thick and long and graduated in steps of 0.1 mL.

#### Instructions for use

The dose is measured by drawing the plunger of the syringe back until it reaches the marking for the dose the doctor has prescribed for your child. This dose can be repeated, if necessary, after 6 hours, without exceeding 4 doses per day, as a general rule.

While the child is awake, position the child in half-sitting position in the hollow of your arm, with the child's head resting on your arm.

Slip about the first 1 cm of the syringe into the child's mouth and place it against the inside cheek; Let the child suck. If the child does not suck, slowly press the plunger of the syringe so that the suspension trickles into the mouth.

Do not lay the child down directly after administration. It is recommended to wait for the child has swallowed the medicine before reverting back to lying position.

#### For first use

1. Open the bottle by unscrewing the child-resistant closure while pressing downwards.



- 2. Insert the adaptor firmly into the bottle while holding the bottle the right way up.
- 3. Replace the screw cap on the bottle with the adaptor.
- 4. Retighten the screw cap to push the adaptor well into the bottle.

#### For each administration

- 1. The bottle does not need to be shaken before administration. The medicine is administered as a ready-made oral suspension to be given using a specific marked syringe.
- 2. Open the bottle by unscrewing the child-resistant closure while pressing downwards (figure 1).
- 3. Holding the bottle the right way up, insert the syringe firmly into the adaptor fitted to the bottle (figure 2).
- 4. Turn the bottle with the syringe upside down (figure 3).
- 5. Draw back the plunger to obtain the desired volume (figure 4A). Then push the plunger to remove as many air bubbles as possible from the syringe (figure 4B). Finally, draw back the plunger until graduation corresponding to the prescribed dose in ml (figure 4C). *Note: if air gets into the syringe, empty the syringe into the bottle and start the procedure again.*
- 6. Turn the bottle with the syringe into its upright position.
- 7. Remove the syringe from the adaptor. Put the syringe into the child mouth and push the plunger to slowly administer the medicine into the mouth.
- Close the bottle by tightening the screw cap well on top of the adaptor.
  The bottle must be closed after each use and stored for a maximum of 30 days.
- 9. The syringe must be rinsed thoroughly with water, wiped dry after each use and replaced back into the medicine's carton. The oral syringe in the carton should be used only with this medicine.



# If you give more AMGLIDIA to your child than you should See your doctor, nurse or your hospital pharmacist immediately.

There is a risk of hypoglycaemia. You should check capillary blood sugar of your child and follow the instructions described in section 4.

# If you forget to give AMGLIDIA

If you forget to give AMGLIDIA, there is a risk of high blood sugar.

You must check your child's blood sugar (capillary blood sugar) and give AMGLIDIA as soon as you realise you have forgotten to use it. If your child's capillary blood sugar exceeds 3 g/L (or 300 mg/dL or 16.5 mmol/L), check for the presence of ketonuria with a finger stick or urine stick tests according to your child's doctor recommendations. If ketonuria is detected, you must inject insulin immediately according to the procedure defined beforehand with your child's doctor and contact him/her or his/her team for advice.

Do not give a double dose to make up for a forgotten dose.

# If you stop giving AMGLIDIA

There is a risk of high blood sugar.

You should check your child's blood sugar (capillary blood sugar). Diabetes symptoms may reappear and may lead to a serious disturbance of the body's metabolism with high blood levels of ketones (ketoacidosis), dehydration and disturbance of the balance of acids in the body. You should therefore never stop the medicine without checking with the doctor looking after your child. Seek advice from your doctor.

You will be requested to bring back remaining AMGLIDIA oral suspension to your doctor at each consultation.

If you have any further questions on the use of this medicine, ask the doctor of your child or pharmacist.

#### 4. **Possible side effects**

Like all medicines, this medicine can cause side effects, although not everybody gets them.

#### Serious side effects

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- shaking, sweating, feeling very anxious or confused, fast heart beat
- excessive hunger, headache

If your child starts to become pale, sweating, has irregular heart rhythm or seems disoriented, confused or unresponsive, these may be signs that the child's blood sugar is too low; you should first solve the situation as explained below and you should then talk to your child's doctor to adapt AMGLIDIA's dose.

The risk of low blood sugar is increased if the medicine is not taken with a meal, is taken with alcohol, or if combined with certain medicines. Such low blood sugar should be managed by taking sugar by mouth followed by a snack or meal. If very low blood sugar occurs that affects consciousness, emergency services should be called and an intravenous glucose injection performed. After such a severe episode of hypoglycaemia, the child and family should see the child's doctor to check the appropriateness of the dose of glibenclamide suspension.

# Allergic reactions

This medicine may cause allergic reactions, which may be serious in isolated cases, including difficulties to breath, low blood pressure and shock. If your child presents any of theses symptoms, you should immediately go to the nearest emergency department.

Gastro intestinal disorders (very common: may affect more than 1 in 10 people):

- Diarrhea
- Abdominal (belly) pain
- Vomiting
- Stomach ache (Dyspepsia)

Teeth problems (common: may affect up to 1 in 10 people):

- Tooth discoloration.

**Abnormal blood test results** (very common: may affect more than 1 in 10 people) Laboratory blood tests may show changes in blood cells (decrease in white blood cells: leucopenia) and effects on liver function (brief increase in enzymes called transaminases).

# **Other side effects:**

Tell your doctor or pharmacist if you notice any of the following side effects:

- Skin rash: itching, nettle rash (urticarial), allergic skin reaction, blistering of the skin, skin inflammation.
- Increase in sensitivity of the skin to sunlight
- Transient visual disturbances.
- Other laboratory blood tests changes: increased levels of the white blood cells called eosinophils (hypereosinophilia), mild to severe decrease in blood components called platelets (thrombocytopenia), which can lead to subcutaneous bleeding (purpura).

#### **Reporting of side effects**

If you notice any side effects, talk to your doctor or pharmacist. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via the national reporting system listed in <u>Appendix V</u>. By reporting side effects you can help provide more information on the safety of this medicine.

# 5. How to store AMGLIDIA

Keep this medicine out of the sight and reach of children.

Do not use this medicine after the expiry date which is stated on the carton and bottle after EXP. The expiry date refers to the last day of that month.

Keep the bottle the outer carton in order to protect from light. After first opening, use within 30 days. Keep the bottle tightly closed.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

#### 6. Contents of the pack and other information

#### What AMGLIDIA contains

- The active substance is glibenclamide. Each mL contains 0.6 mg glibenclamide.
- The other ingredients are: xanthan gum, hydroxyethylcellulose, lactic acid, purified water, sodium citrate and sodium benzoate (E211) (see section 2 "AMGLIDIA contains sodium and benzoate).

#### What AMGLIDIA looks like and contents of the pack

AMGLIDIA is a white and odourless oral suspension.

Each carton contains:

- 1 bottle containing 30 mL oral suspension
- one 1 mL oral syringe (thin and small) and **or** 5 mL oral syringe (thick and long) depending on the prescribed dose and the volume to be given. The syringe is packed in a transparent bag.
- one syringe adaptor.

# **Marketing Authorisation Holder**

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#### Other sources of information

Detailed information on this medicine is available on the European Medicines Agency web site: <u>http://www.ema.europa.eu</u>. There are also links to other websites about rare diseases and treatments.