The following information is intended for medical or healthcare professionals only:

Instructions for giving Meronem to yourself or someone else at home

Some patients, parents and carers are trained to give Meronem at home.

Warning – You should only give this medicine to yourself or someone else at home after a doctor or nurse has trained you.

How to prepare this medicine

- The medicine must be mixed with another liquid (the diluent). Your doctor will tell you how much of the diluent to use.
- Use the medicine straight after preparing it. Do not freeze it.

1. Wash your hands and dry them very well. Prepare a clean working area.
2. Remove the Meronem bottle (vial) from the packaging. Check the vial and the expiry date. Check that the vial is intact and has not been damaged.
3. Remove the coloured cap and clean the grey rubber stopper with an alcohol wipe. Allow the rubber stopper to dry.
4. Connect a new sterile needle to a new sterile syringe, without touching the ends.
5. Draw up the recommended amount of sterile 'Water for Injections' into the syringe. The amount of liquid that you need is shown in the table below:

Dose of Meronem	Amount of 'Water for Injections' needed for dilution
500 mg (milligrams)	10 ml (millilitres)
1 g (gram)	20 ml
1.5 g	30 ml
2 g	40 ml

Please note: If your prescribed dose of Meronem is more than 1g, you will need to use more than 1 vial of Meronem. You can then draw the liquid in the vials into the one syringe.

6. Put the needle of the syringe through the centre of the grey rubber stopper and inject the recommended amount of Water for Injections into the vial or vials of Meronem.
7. Remove the needle from the vial and shake the vial well for about 5 seconds, or until all the powder has dissolved. Clean the grey rubber stopper once more with a new alcohol wipe and allow the rubber stopper to dry.
8. With the plunger of the syringe pushed fully into the syringe, put the needle back through the grey rubber stopper. You must then hold both the syringe and the vial and turn the vial upside down.
9. Keeping the end of the needle in the liquid, pull back the plunger and draw all the liquid in the vial into the syringe.
10. Remove the needle and syringe from the vial and throw the empty vial away in a safe place.
11. Hold the syringe upright, with the needle pointing upwards. Tap the syringe so that any bubbles in the liquid rise to the top of the syringe.
12. Remove any air in the syringe by gently pushing the plunger until all the air has gone.
13. If you are using Meronem at home, dispose of any needles and infusion lines that you have used in an appropriate way. If your doctor decides to stop your treatment, dispose of any unused Meronem in an appropriate way.

Giving the injection

You can either give this medicine through a short cannula or venflon, or through a port or central line.

Giving Meronem through a short cannula or venflon

1. Remove the needle from the syringe and throw the needle away carefully in your sharps bin.
2. Wipe the end of the short cannula or venflon with an alcohol wipe and allow it to dry. Open the cap on your cannula and connect the syringe.
3. Slowly push the plunger of the syringe to give the antibiotic steadily over about 5 minutes.
4. Once you have finished giving the antibiotic and the syringe is empty, remove the syringe and use a flush as recommended by your doctor or nurse.
5. Close the cap of your cannula and carefully throw the syringe away in your sharps bin.

Giving Meronem through a port or central line

1. Remove the cap on the port or line, clean the end of the line with an alcohol wipe and allow it to dry.
2. Connect the syringe and slowly push the plunger on the syringe to give the antibiotic steadily over about 5 minutes.
3. Once you have finished giving the antibiotic, remove the syringe and use a flush as recommended by your doctor or nurse.
4. Place a new clean cap on your central line and carefully throw the syringe away in your sharps bin.

The following information is intended for healthcare professionals only. For full prescribing information please refer to the SmPC.

Posology and method of administration

Posology

The tables below provide general recommendations for dosing.

The dose of meropenem administered and the duration of treatment should take into account the type of infection to be treated, including its severity, and the clinical response.

A dose of up to 2 g three times daily in adults and adolescents and a dose of up to 40 mg/kg three times daily in children may be particularly appropriate when treating some types of infections, such as infections due to less susceptible bacterial species (e.g. *Enterobacteriaceae, Pseudomonas aeruginosa, Acinetobacter* spp.), or very severe infections.

Additional considerations for dosing are needed when treating patients with renal insufficiency (see further below).

Adults and Adolescents

Infection	Dose to be administered every 8 hours
Severe pneumonia including hospital and ventilator-associated pneumonia.	500 mg or 1 g
Broncho-pulmonary infections in cystic fibrosis	2 g
Complicated urinary tract infections	500 mg or 1 g
Complicated intra-abdominal infections	500 mg or 1 g
Intra- and post-partum infections	500 mg or 1 g
Complicated skin and soft tissue infections	500 mg or 1 g
Acute bacterial meningitis	2 g
Management of febrile neutropenic patients	1 g

Meropenem is usually given by intravenous infusion over approximately 15 to 30 minutes (see sections 6.2, 6.3 and 6.6). Alternatively, doses up to 1 g can be given as an intravenous bolus injection over approximately 5 minutes. There are limited safety data available to support the administration of a 2 g dose in adults as an intravenous bolus injection.

Renal impairment

The dose for adults and adolescents should be adjusted when creatinine clearance is less than 51 ml/min, as shown below. There are limited data to support the administration of these dose adjustments for a unit dose of 2 g.

Creatinine clearance (ml/min)	Dose (based on "unit" dose range of 500 mg or 1 g or 2 g, see table above)	Frequency
26-50	one unit dose	every 12 hours
10-25	half of one unit dose	every 12 hours
<10	half of one unit dose	every 24 hours

Meropenem is cleared by haemodialysis and haemofiltration. The required dose should be administered after completion of the haemodialysis cycle.

There are no established dose recommendations for patients receiving peritoneal dialysis.

Hepatic impairment

No dose adjustment is necessary in patients with hepatic impairment (see section 4.4).

Dose in elderly patients

No dose adjustment is required for the elderly with normal renal function or creatinine clearance values above 50 ml/min.

Paediatric population

Children under 3 months of age

The safety and efficacy of meropenem in children under 3 months of age have not been established and the optimal dose regimen has not been identified. However, limited pharmacokinetic data suggest that 20 mg/kg every 8 hours may be an appropriate regimen (see section 5.2).

Children from 3 months to 11 years of age and up to 50 kg body weight

The recommended dose regimens are shown in the table below:

Infection	Dose to be administered every 8 hours
Severe pneumonia including hospital and ventilator-associated pneumonia	10 or 20 mg/kg
Broncho-pulmonary infections in cystic fibrosis	40 mg/kg
Complicated urinary tract infections	10 or 20 mg/kg
Complicated intra-abdominal infections	10 or 20 mg/kg
Complicated skin and soft tissue infections	10 or 20 mg/kg
Acute bacterial meningitis	40 mg/kg
Management of febrile neutropenic patients	20 mg/kg

Children over 50 kg body weight

The adult dose should be administered.

PACKAGE LEAFLET: INFORMATION FOR THE USER

Meronem® IV 500 mg and 1 g

Powder for solution for injection or infusion

meropenem

Read all of this leaflet carefully before you start using 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, pharmacist or nurse.
- This medicine has been prescribed for you only. Do not pass it on to others. It may harm them, even if their signs of illness are the same as yours.
- If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. See section 4.

What is in this leaflet:

1. WHAT MERONEM IS AND WHAT IT IS USED FOR

Meronem contains the active substance meropenem and belongs to a group of medicines called carbapenem antibiotics. It works by killing bacteria, which can cause serious infections.

Meronem is used to treat the following in adults and children aged 3 months and older:

- Infection affecting the lungs (pneumonia)
- Lung and bronchial infections in patients suffering from cystic fibrosis
- Complicated urinary tract infections
- Complicated infections in the abdomen
- Infections that you can catch during or after the delivery
- Complicated skin and soft tissues infections
- Acute bacterial infection of the brain (meningitis)

Meronem may be used in the management of neutropenic patients with fever that is suspected to be due to a bacterial infection.

Meropenem may be used to treat bacterial infection of the blood which might be associated with a type of infection mentioned above.

2. WHAT YOU NEED TO KNOW BEFORE YOU USE MERONEM

Do not use Meronem if

- you are allergic (hypersensitive) to meropenem or any of the other ingredients of this medicine (listed in Section 6).
- you are allergic (hypersensitive) to other antibiotics such as penicillins, cephalosporins, or carbapenems as you may also be allergic to meropenem.

Warnings and precautions

Talk to your doctor, pharmacist or nurse before using Meronem if:

- you have health problems, such as liver or kidney problems.
- you have had severe diarrhoea after taking other antibiotics.

You may develop a positive test (Coombs test) which indicates the presence of antibodies that may destroy red blood cells. Your doctor will discuss this with you.

You may develop signs and symptoms of severe skin reactions (see section 4). If this happens talk to your doctor or nurse immediately so that they can treat the symptoms.

If you notice unexplained muscle pain, tenderness or weakness and/or dark coloured urine tell your doctor immediately. This may be a sign of muscle breakdown (called rhabdomyolysis) which may lead to kidney problems.

Liver problems

If you notice yellowing of the skin and eyes, itchy skin, dark-coloured urine or light-coloured stool tell your doctor. This may be a sign of liver problems which your doctor needs to check.

If you are not sure if any of the above applies to you, talk to your doctor or nurse before using Meronem.

Other medicines and Meronem

Tell your doctor, pharmacist, or nurse if you are taking, have recently taken or might take any other medicines. This is because Meronem can affect the way some medicines work and some medicines can have an effect on Meronem.

In particular, tell your doctor, pharmacist or nurse if you are taking any of the following medicines:

- Probenecid (used to treat gout).
- Valproic acid/sodium valproate/valpromide (used to treat epilepsy). Meronem should not be used because it may decrease the effect of sodium valproate.
- Oral anti-coagulant agent (used to treat or prevent blood clots).

Pregnancy and breast-feeding

If you are pregnant or breast-feeding, think you may be pregnant or planning to have a baby, ask your doctor or pharmacist for advice before using this medicine. It is preferable to avoid the use of meropenem during pregnancy. Your doctor will decide whether you should use Meronem.

It is important that you tell your doctor if you are breast-feeding or if you intend to breast-feed before receiving meropenem. Small amounts of this medicine may pass into the breast milk. Therefore, your doctor will decide whether you should use Meronem while breast-feeding.

Driving and using machines

No studies on the effect on the ability to drive and use machines have been performed.

Meronem has been associated with headache and tingling or pricking skin (paraesthesia). Any of these side effects could affect your ability to drive or operate machines.

Meronem may cause involuntary muscle movements which may cause the person's body to shake rapidly and uncontrollably (convulsions). This is usually accompanied with a loss of consciousness. Do not drive or use machines if you experience this side effect.

Meronem contains sodium

Meronem 500 mg: This medicine contains 45 mg sodium (main component of cooking/table salt) in each 500 mg dose. This is equivalent to 2.25% of the recommended maximum daily dietary intake of sodium for an adult.

Meronem 1 g: This medicine contains 90 mg sodium (main component of cooking/table salt) in each 1 g dose. This is equivalent to 4.5% of the recommended maximum daily dietary intake of sodium for an adult.

If you have a condition which requires you to monitor your sodium intake please inform your doctor, pharmacist or nurse.

3. HOW TO USE MERONEM

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

Use in adults

- The dose depends on the type of infection that you have, where the infection is in the body and how serious the infection is. Your doctor will decide on the dose that you need.
- The dose for adults is usually between 500 mg (milligrams) and 2 g (gram). You will usually receive a dose every 8 hours. However you may receive a dose less often if your kidneys do not work very well.

Use in children and adolescents

- The dose for children over 3 months old and to 11 years of age is decided using the age and weight of the child. The usual dose is between 10 mg and 40 mg of Meronem for each kilogram (kg) that the child weighs. A dose is usually given every 8 hours. Children who weigh over 50 kg will be given an adult dose.

How to use Meronem

- Meronem will be given to you as an injection or infusion into a large vein.
- Your doctor or nurse will normally give Meronem to you.
- However, some patients, parents and carers are trained to give Meronem at home. Instructions for doing this are provided in this leaflet (in the section called 'Instructions for giving Meronem to yourself or someone else at home'). Always use Meronem exactly as your doctor has told you. You should check with your doctor if you are not sure.
- Your injection should not be mixed with or added to solutions that contain other medicines.
- The injection may take about 5 minutes or between 15 and 30 minutes. Your doctor will tell you how to give Meronem.
- You should normally have your injections at the same times each day.

If you use more Meronem than you should

If you accidentally use more than your prescribed dose, contact your doctor or nearest hospital straight away.

If you forget to use Meronem

If you miss an injection, you should have it as soon as possible. However, if it is almost time for your next injection, skip the missed injection. Do not have a double dose (two injections at the same time) to make up for a forgotten dose.

If you stop using Meronem

Do not stop having Meronem until your doctor tells you to. If you have any further questions on the use of this

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ETICHETTA TRASPARENTE

Meronem® IV 500 mg and 1 g

Meronem® IV 500 mg and 1 g

ETICHETTA TRASPARENTE

TRANSPARENT LABEL

medicine, ask your doctor, pharmacist or nurse.

4. POSSIBLE SIDE EFFECTS

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

Severe allergic reactions

If you have any of these signs and symptoms, **tell your doctor or nurse straight away**. You may need urgent medical treatment. The signs and symptoms may include a sudden onset of:

- Severe rash, itching or hives on the skin.
- Swelling of the face, lips, tongue or other parts of the body.
- Shortness of breath, wheezing or trouble breathing.
- Serious skin reactions which include
  - Serious hypersensitivity reactions involving fever, skin rash, and changes in the blood tests that check how the liver is working (increased levels of liver enzymes) and an increase in a type of white blood cell (eosinophilia) and enlarged lymph nodes. These may be signs of a multi-organ sensitivity disorder known as DRESS syndrome.
  - Severe red scaly rash, skin bumps that contain pus, blisters or peeling of skin, which may be associated with a high fever and joint pain.
  - Severe skin rashes that can appear as reddish circular patches often with central blisters on the trunk, skin peeling, ulcers of mouth, throat, nose, genitals and eyes and can be preceded by fever and flu-like symptoms (Stevens-Johnson syndrome) or a more severe form (toxic epidermal necrolysis).

Damage to red blood cells (frequency not known)

The signs include:

- Being breathless when you do not expect it.
- Red or brown urine.

If you notice any of the above, **see a doctor straight away**.

Muscle breakdown

- Unexplained muscle pain, tenderness or weakness, and/or dark coloured urine.

If you notice these signs or symptoms, **see a doctor straight away.**

Liver problems (uncommon)

- Yellowing of the skin and eyes, itchy skin, dark-coloured urine or light-coloured stool.

If you notice these signs or symptoms, **see a doctor straight away.**

Other possible side effects:

Common (may affect up to 1 in 10 people)

- Abdominal (stomach) pain.
- Feeling sick (nausea).
- Being sick (vomiting).
- Diarrhoea.
- Headache.
- Skin rash, itchy skin.
- Pain and inflammation.
- Increased numbers of platelets in your blood (shown in a blood test).
- Changes in blood tests, including tests that show how well your liver is working.

Uncommon (may affect up to 1 in 100 people)

- Changes in your blood. These include reduced numbers of platelets (which may make you bruise more easily), increased numbers of some white blood cells, decreased numbers of other white cells and increased amounts of a substance called 'bilirubin'. Your doctor may do blood tests from time to time.
- Changes in blood tests, including tests that show how well your kidney is working.
- Reduced levels of potassium in your blood (which can cause weakness, muscle cramps, tingling and heart rhythm disturbances).
- A tingling feeling (pins and needles).
- Infections of the mouth or the vagina that are caused by a fungus (thrush).
- Inflammation of the bowel with diarrhoea.
- Sore veins where Meronem is injected.
- Other changes in your blood. The symptoms include frequent infections, high temperature and sore throat. Your doctor may do blood tests from time to time.

Rare (may affect up to 1 in 1,000 people)

- Fits (convulsions).
- Acute disorientation and confusion (delirium).

Sudden chest pain, which may be a sign of a potentially serious allergic reaction called Kounis syndrome has been noted with other medicines of the same type. If this happens talk to a doctor or nurse immediately.

Reporting of side effects

If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via the Yellow Card Scheme at: www.mhra.gov.uk/yellowcard or search for MHRA Yellow Card in the Google Play or Apple App Store. By reporting side effects you can help provide more information on the safety of this medicine.

5. HOW TO STORE MERONEM

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 container. The expiry date refers to the last day of that month.

Do not store above 30 °C.

Injection

After reconstitution: The reconstituted solutions for intravenous injection should be used immediately. The time interval between the beginning of reconstitution and the end of intravenous injection should not exceed:

- 3 hours when stored at up to 25 °C
- 12 hours when stored under refrigerated conditions (2-8 °C).

Infusion

After reconstitution: The reconstituted solutions for intravenous infusion should be used immediately. The time interval between the beginning of reconstitution and the end of intravenous infusion should not exceed:

- 3 hours when stored at up to 25 °C when Meronem is dissolved in sodium chloride;
- 24 hours when stored under refrigerated conditions (2-8 °C) when Meronem is dissolved in sodium chloride;
- when Meronem is dissolved in dextrose, the solution should be used immediately.

From a microbiological point of view, unless the method of opening/reconstitution/dilution precludes the risk of microbiological contamination, the product should be used immediately.

If not used immediately in-use storage times and conditions are the responsibility of the user.

Do not freeze the reconstituted solution.

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 to protect the environment.

6. CONTENTS OF THE PACK AND OTHER INFORMATION

What Meronem contains

The active substance is meropenem trihydrate equivalent to 500 mg anhydrous meropenem.

The active substance is meropenem trihydrate equivalent to 1 g anhydrous meropenem.

The other ingredient is anhydrous sodium carbonate.

What Meronem looks like and contents of the pack

Meronem is a white to light yellow powder for solution for injection or infusion in vial. Pack sizes of 1 or 10 vials.

Marketing Authorisation Holder

Pfizer Limited
Ramsgate Road
Sandwich
Kent
CT13 9NJ
United Kingdom

Manufacturer

Pfizer Service Company BV
Hermeslaan 11
1932 Zaventem
Belgium

This medicine is authorised in the Member States of the European Economic Area and in the United Kingdom (Northern Ireland) under the following names:

Belgium:	Meronem IV
Cyprus:	MERONEM
Czech Republic:	MERONEM
Finland:	Meronem
France:	MERONEM
Greece:	Meronem
Ireland:	Meronem IV
Italy:	MERREM
Luxembourg:	Meronem IV
Poland:	Meronem
Sweden:	Meronem
United Kingdom (Northern Ireland):	Meronem IV

Advice/medical education

Antibiotics are used to treat infections caused by bacteria. They have no effect against infections caused by viruses. Sometimes an infection caused by bacteria does not respond to a course of an antibiotic. One of the commonest reasons for this to occur is because the bacteria causing the infection are resistant to the antibiotic that is being taken. This means that they can survive and even multiply despite the antibiotic.

Bacteria can become resistant to antibiotics for many reasons. Using antibiotics carefully can help to reduce the chance of bacteria becoming resistant to them.

When your doctor prescribes a course of an antibiotic it is intended to treat only your current illness. Paying attention to the following advice will help prevent the emergence of resistant bacteria that could stop the antibiotic working.

1. It is very important that you take the antibiotic at the right dose, at the right times and for the right number of days. Read the instructions on the label and if you do not understand anything ask your doctor or pharmacist to explain.
2. You should not take an antibiotic unless it has been prescribed specifically for you and you should use it only to treat the infection for which it was prescribed.
3. You should not take antibiotics that have been prescribed for other people even if they had an infection that was similar to yours.
4. You should not give antibiotics that were prescribed for you to other people.
5. If you have any antibiotic left over when you have taken the course as directed by your doctor you should take the remainder to a pharmacy for appropriate disposal.

This leaflet was last revised in 10/2025.

Ref: MR 15_0

There is no experience in children with renal impairment.

Method of administration

Meropenem is usually given by intravenous infusion over approximately 15 to 30 minutes (see sections 6.2, 6.3, and 6.6). Alternatively, meropenem doses of up to 20 mg/kg may be given as an intravenous bolus over approximately 5 minutes. There are limited safety data available to support the administration of a 40 mg/kg dose in children as an intravenous bolus injection.

For instructions on reconstitution of the medicinal product before administration, see section 6.6.

Incompatibilities

This medicinal product must not be mixed with other medicinal products except those mentioned in section 6.6.

Shelf life

4 years

After reconstitution:

Intravenous bolus injection administration

A solution for bolus injection is prepared by dissolving the drug product in water for injection to a final concentration of 50 mg/ml. Chemical and physical in-use stability for a prepared solution for bolus injection has been demonstrated for 3 hours at up to 25°C or 12 hours under refrigerated conditions (2-8°C).

From a microbiological point of view, unless the method of opening/reconstitution/dilution precludes the risk of microbiological contamination, the product should be used immediately.

If not used immediately in-use storage times and conditions are the responsibility of the user.

Intravenous infusion administration

A solution for infusion is prepared by dissolving the drug product in either 0.9% sodium chloride solution for infusion or 5% dextrose solution for infusion to a final concentration of 1 to 20 mg/ml. Chemical and physical in-use stability for a prepared solution for infusion using 0.9% sodium chloride solution has been demonstrated for 3 hours at up to 25°C or 24 hours under refrigerated conditions (2-8°C).

From a microbiological point of view, unless the method of opening/reconstitution/dilution precludes the risk of microbiological contamination, the product should be used immediately.

If not used immediately in-use storage times and conditions are the responsibility of the user.

Reconstituted solution of the product in 5% dextrose solution should be used immediately.

The constituted solutions should not be frozen.

Special precautions for storage

Do not store above 30°C.

Do not freeze the reconstituted solution.

For storage conditions after reconstitution of the medicinal product, see section 6.3.

Special precautions for disposal and other handling

Injection

Meropenem to be used for bolus intravenous injection should be constituted with sterile water for injection.

Infusion

For intravenous infusion meropenem vials may be directly constituted with 0.9% sodium chloride or 5% dextrose solutions for infusion.

Each vial is for single use only.

Standard aseptic techniques should be used for solution preparation and administration.

The solution should be shaken before use.

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

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