



M-O

Measles, Rubella, Mumps and Chickenpox



Measles and rubella have become rare in Scotland, due to successful vaccination programmes. Mumps is also uncommon among young children, although there has been an outbreak in recent years among teenagers and young adults who have not received two doses of the measles, mumps, rubella (MMR) vaccine. Chickenpox, however, is a relatively common childhood illness.

Measles, mumps, rubella and chickenpox are all caused by viruses, which spread from person-to-person through close contact, for example through sneezes or using the same crockery and towels. They are all notifiable diseases, which means the GP has, by law, to notify the local public health department who keep annual records of the number of cases.

Measles

Incubation (from exposure to onset of symptoms)

- about 10 days and usually 14 days from initial exposure until the appearance of the rash.

Symptoms may include:

- feeling 'under the weather'
- fever
- cough
- runny nose
- watery or sticky eyes
- small white spots on the inside of the child's cheeks
- a rash.

The rash

- a fine rash will appear after several days
- it looks red and blotchy
- it begins behind the ears and on the face and spreads over the rest of the body
- it usually lasts between five and seven days.

Measles, Rubella, Mumps and Chickenpox

Infectious?

Yes, measles is infectious from four days before the rash appears to four days after its appearance.

Possible complications (occur in 1 out of 15 notified cases)

- eye, ear and chest infections, which may need antibiotics
- pneumonia
- fits
- encephalitis (infection of lining of the brain)
- brain damage.

Rubella

Rubella is a viral infection sometimes known as 'German measles'. It is usually fairly mild and, together with measles, is sometimes difficult to tell apart from other viral infections. However if acquired by women in early pregnancy, it can have serious consequences on the unborn child.

Incubation (from exposure to onset of symptoms)

- usually between 14 and 21 days from initial exposure to infection.

Symptoms may include:

- mild fever
- headache
- runny nose and sore throat
- swollen, tender glands around the neck, armpits and groin
- sometimes a fine, pink rash will be the first symptom you notice.

The rash

- tiny pink spots
- usually appears first on the face and then spreads across the whole body
- is not itchy
- usually lasts 3–5 days.

Infectious?

Yes, from a week before to at least four days after the rash appears.

Possible complications

If you suspect a child or young person has rubella then contact your GP. Don't take the child or young person to the surgery because of the risk to any pregnant women who may be there.

Rubella infection in early pregnancy can cause devastating damage to the developing baby in terms of vision and hearing loss. The virus affects all foetal organs and can lead to serious defects including learning difficulties, deafness, cataracts, cardiac abnormalities, and inflammatory lesions of the brain, liver, lungs and bone marrow. Therefore, anyone with rubella should be kept away from pregnant women.

Mumps

Incubation (from exposure to onset of symptoms)

- between 12 and 25 days from initial exposure to infection.

Symptoms may include:

- fever (lasting 1–6 days)
- headache
- painful swelling of the glands in front of the ears (lasting 7–10 days)
- pain when opening the mouth leading to discomfort on eating and drinking
- earache
- in mild cases the swelling may last only 3–4 days, but it can go on for a week or more.

Infectious?

Yes, mumps is infectious from 6–7 days before swelling appears until 9 days after. Transmission of infection is also possible without these signs.

Possible complications

- hearing loss, which is usually temporary and affects one side only
- older boys can be at risk from inflammation of the testicles
- meningitis (about 5 in 100 cases)
- encephalitis (infection of the brain in about 1 in 1000 cases).

Contact the child's GP if you suspect any of the above complications.

In terms of prevention for measles, mumps and rubella, two doses of MMR vaccine is recognised as the only way to prevent these diseases.

Chickenpox

Incubation (from exposure to onset of symptoms)

- between two and three weeks from initial exposure to infection.

Symptoms may include:

- highest rate of infection in pre-school children
- child may feel generally unwell
- mild fever
- itchy rash.

The rash

- raised itchy spots, which develop in crops all over the body
- the spots then form blisters, which scab over
- after a few days the scabs fall off.

Infectious?

Yes, chickenpox is very infectious, from two days before the rash appears until the last of the spots are dry and have scabbed over.

Possible complications

- spots might become infected and need treatment with antibiotics
- encephalitis (infection of the brain)
- pneumonia.

Contact the child's GP if you suspect any complications or if the child also has severe eczema, as they may need additional treatment. Vaccination is not routinely recommended in UK, except for some high-risk individuals.

What can I do?

When you are caring for a child or young person with any of the above illnesses the main aim is to encourage rest and to treat the symptoms. So if the child has:

- an itchy rash – cool baths and applications of calamine lotion can help, except with chickenpox where calamine lotion can block up the spots. If the itch is bad and they can't stop scratching then wearing cotton mitts might help.
- sticky eyes – wipe gently with cotton wool balls soaked in cooled, boiled water.

- a fever – this is a temperature over 37.5 degrees celsius. You can help bring down the child's temperature by encouraging them to drink plenty of cool drinks, making sure the room is cool, removing heavy clothes and bedcovers, sponging the child down with warm water and letting the water dry naturally. A dose of infant or child paracetamol or ibuprofen liquid may also help to reduce a fever. Always read and follow the instructions.
- lost their appetite – encourage them to take small light meals such as ice-cream, light soups and milkshakes.

If you are worried or have concerns speak to your local health care staff, or call NHS 24 on 0845 4 24 24 24.

Cross infection

As with all four illnesses it makes sense to try to keep the child away from other children when they are infectious. See each specific illness for details of when there is a risk of infection.



Points to ponder/training ideas

- How can you minimise the risk of these infections spreading to other children?
- Who do you need to inform?

Links to other topics in this pack

See: *Immunisation; Meningitis.*



Useful leaflets/resources

MMR: Your Questions Answered. A leaflet providing essential facts and answers to common questions about MMR. Available from NHS Health Scotland at www.healthscotland.com Tel: 0131 536 5500

MMR Discussion Pack: An Information Guide for Health Professionals and Parents. Available from NHS Health Scotland.

Tel: 0131 536 5500

Website: www.healthscotland.com

Guidance on infection control in schools and nurseries can be obtained from Health Protection Scotland.

Tel: 0141 300 1100

Website: www.hps.scot.nhs.uk

What is meningitis?

Meningitis is an infection of the lining of the brain. Meningitis can be caused by several types of bacteria or virus. Infection with meningococcal bacteria can cause diseases such as meningitis, septicaemia (blood poisoning), pericarditis (inflammation of the lining of the sac that contains the heart) and arthritis (swelling of the joints). If you suspect meningitis, get help urgently.

What is septicaemia?

Septicaemia is a very serious condition in which the bloodstream becomes infected. The signs of cold hands and feet, pale skin, vomiting and being very sleepy or difficult to wake can come on quickly. If you suspect septicaemia, get help urgently.

Both meningitis and septicaemia are very serious. It is important that you recognise the signs and symptoms, and know what to do if you see them. Meningitis and septicaemia can affect anyone of any age but children and young people are most at risk.

Early symptoms of meningitis and septicaemia may be similar to a cold or flu (fever, vomiting, irritability and restlessness). However, individuals with meningitis and septicaemia can become seriously ill within hours, so it is important to know the signs and symptoms and get medical help urgently.

Signs and symptoms

Meningitis

- severe headache
- stiff neck
- dislike of bright lights
- fever
- vomiting
- confusion
- drowsiness
- seizures
- rash.*

*A sign of meningococcal septicaemia is a rash which starts off as tiny red or purple 'pin pricks' anywhere on the body. The rash may develop quickly into larger red or purple blotches, or into what looks like fresh bruises. If a glass tumbler is pressed firmly against a septicaemic rash, the marks will not fade; you will still be able to see the rash through the glass.

Meningitis

Septicaemia

- rash
- fever
- vomiting
- very cold hands and feet[†]
- shivering
- rapid breathing
- pains in the limbs, joints, muscles[†]
- stomach pain – sometimes with diarrhoea
- pale or mottled skin[†]
- drowsiness.

The rash can be harder to see on dark skin, so check for spots on paler areas like the palms of hands, soles of the feet, the stomach, inside the eyelids and on the roof of the mouth.

People with septicaemia and meningitis do not always develop a rash.

Other signs and symptoms in babies for both meningitis and septicaemia

- Tense or bulging area on baby's head.
- Blotchy skin, getting paler or turning blue.
- Refusing to feed.
- Irritable when picked up, with a high moaning cry.
- A stiff body with jerky movements, or else floppy and lifeless.

What can I do?

In the short term

If you have a child or young person in your care who develops the above symptoms, speak to your doctor or contact NHS 24 on 08454 24 24 24 immediately, or take them to an accident and emergency department.

[†]Look out for these signs and symptoms, they are likely to appear first.

In the longer term

Although many children and young people will make a complete recovery from meningitis and septicaemia, others can suffer physical and/or emotional after-effects such as depression or hearing impairment.

Vaccines protect against some, but not all, forms of meningitis so it is important to always be aware of the signs. If you are concerned that you or a child in your care may not be immunised, speak to the looked after children's nurse in your area or call NHS 24 on 08454 24 24 24.



Points to ponder/training ideas

- Would an illustrated poster help you recognise the symptoms of meningitis? These are available from the Meningitis Research Foundation (see *Useful contacts*).



Useful contacts

Meningitis Trust

The Meningitis Trust produces an extensive range of information to raise awareness of the disease, funds research into vaccines and treatment, and offers a wide range of support for people affected by meningitis and meningococcal septicaemia.

Helpline: 0800 028 1828

Website: www.meningitis-trust.org

Meningitis Research Foundation

The Meningitis Research Foundation has a range of leaflets, posters and information (some of which is available in a wide range of languages) and they have a network of trained befrienders.

Helpline: 080 8800 3344

Website: www.meningitis.org

Meningitis Association of Scotland

Phone or fax: 0141 427 6698

Website: www.meningitis-scotland.org

Neonatal Abstinence Syndrome

Neonatal abstinence syndrome (NAS) is a term for a group of problems a baby experiences when withdrawing from exposure to narcotics during pregnancy.

What causes neonatal abstinence syndrome?

Almost every drug passes from the mother's blood through the placenta to the fetus. Illicit substances that cause drug dependence in the mother can also cause addiction in her unborn baby. At birth, the baby's dependence continues. However, since the drug is no longer available, the baby experiences the symptoms of withdrawal.

- The most common cause of NAS is opiates, such as heroin and methadone, which cause withdrawal in over half of babies exposed prenatally. Some symptoms may last as long as 4–6 months. Seizures may also occur and are more likely in babies born to methadone users.
- Cocaine and amphetamine may cause some withdrawal, but the main symptoms in the baby are due to the toxic effects of the drug itself. The baby may also be at greater risk of cot death.
- Heavy alcohol use by the mother can cause withdrawal symptoms in the baby, as well as a group of problems including birth defects called 'foetal alcohol syndrome'.
- Babies of women who smoke heavily during pregnancy can develop a relatively mild abstinence syndrome due to nicotine withdrawal.

As well as the symptoms of withdrawal after birth, drugs may also cause the baby to be born underweight or prematurely. They may suffer from seizures or birth defects as a result of their mother's drug use.

What are the symptoms of neonatal abstinence syndrome?

Symptoms of NAS vary depending on the type, amount and duration of use of the substance, how close to the birth it was used, and whether the baby is full-term or premature. Symptoms of withdrawal may begin within a few hours of the birth, or as late as 5–10 days after; the majority of babies who experience NAS show signs within 24–72 hours after birth. NAS can last from 1 week to 6 months.

Neonatal Abstinence Syndrome

The following are the most common symptoms of NAS, but these can vary greatly from baby to baby:

- high-pitched cry
- irritability
- tremor/jittering
- sleeping difficulties
- stuffy nose
- sneezing
- feeding difficulties due to sucking problems
- tense arms, legs and back
- poor weight gain
- vomiting/diarrhoea
- rapid breathing
- skin irritation.

How is neonatal abstinence syndrome diagnosed?

The symptoms of NAS may resemble other conditions or medical problems. A diagnosis of NAS is made when a baby displays a combination of these signs. A neonatal abstinence scoring system may be used to help diagnose and grade the severity of the withdrawal. Using the scoring system, points are assigned for certain signs and symptoms and the severity of each. This scoring may also help in planning treatment.

Treatment for neonatal abstinence syndrome

- Babies suffering from withdrawal are irritable and often have a difficult time being comforted. Swaddling, or snugly wrapping the baby in a blanket, may help comfort the baby.
- Babies also may need extra calories because of their increased activity and may need a higher calorie formula. Intravenous fluids are sometimes needed if the baby becomes dehydrated or has severe vomiting or diarrhoea.
- Babies with severe withdrawal symptoms may need drug treatment to prevent or reduce serious problems such as seizures and help relieve the discomfort. The treatment for heroin or methadone may include a very small dose of morphine, which is similar to the drug the baby is withdrawing from. Once the signs of withdrawal are controlled, the dosage is gradually decreased to help wean the baby off the drug.

Looking after a baby who is suffering from NAS has often been described as an 'emotional rollercoaster' for carers. It can be a very stressful and emotional time. Don't be afraid to ask for help from NHS medical teams, or specialist counselling services if you feel you can't cope with your feelings.

Helping a baby with NAS symptoms

Prolonged crying (may be high pitched)

- Hold the baby close to your body, perhaps wrapped in a sheet.
- Avoid loud noises, bright lights and excessive handling.
- Humming and gentle rocking may help.

Sleeplessness

- Reduce noise, bright lights, patting or touching the baby too much.
- Soft, gentle music/rocking may help.
- Clean nappy/dry bottom – check for nappy rash or skin irritation and apply hospital formula, nappy rash cream or zinc cream as needed.
- Feed baby on demand.

Excessive sucking of fists

- Cover hands with gloves or mittens if skin becomes damaged.
- Keep areas of damaged skin clean (avoid lotions/creams as the baby may suck them).

Difficult or poor feeding

- Feed small amounts often.
- Feed in quiet, calm surroundings with minimal noise and disturbance.
- Allow time for resting between sucking.

Sneezing, stuffy nose or breathing troubles

- Keep the baby's nose and mouth clean.
- Avoid overdressing or wrapping the baby too tightly.
- Feed the baby slowly, allowing for rest periods between feeds.
- Smaller feeds more often may help.
- Keep the baby in a semi-sitting position, well supported and supervised.
- Avoid the baby sleeping on its tummy.
- If breathing difficulties continue or worsen, contact your GP or call 999.

Neonatal Abstinence Syndrome

Regurgitation and/or vomiting

- Burp the baby each time he/she stops sucking and after the feed.
- Support the baby's cheeks and lower jaw to enhance sucking/swallowing efforts.
- Keep the baby clean and its bedding free of vomit. The smell may increase the problem and the vomit may irritate the baby's skin.

Hyperactivity

- Use soft flannel blankets or a short-haired sheepskin covered by a cotton sheet for the baby's comfort.

Trembling

- Keep the baby in a warm, quiet room.
- Avoid excessive handling of the baby.

Fever (temperature over 37 degrees)

- Keep clothing to a minimum.
- Avoid excessive bedclothes.
- Seek medical help if temperature stays elevated for more than four hours or if other symptoms develop.

The symptoms of NAS may continue for longer than a week and possibly up to six months. Over this time the symptoms will gradually decrease in intensity, but the baby may continue to experience:

- difficulty with attachment during feeding
- colic
- poor sleeping patterns
- slow weight gain.



Useful contacts

Baby Life Support Systems (BLISS)

Tel: 020 7378 1122

Freephone Parents' supportline: 0500 618 140

Website: www.bliss.org.uk

FRANK – The National Drugs Helpline

Free confidential drugs information and advice. Website has an A–Z on drugs.

Tel: 0800 77 66 00 (24 hours a day)

Textphone: 0800 917 8765

Website: www.talktofrank.com

