Hand, foot and mouth disease

Hand, foot and mouth disease (HFMD) is a viral illness, common in children, that causes sores in the mouth and rashes on the hands and feet. It is caused by viruses that belong to the enterovirus genus. Coxsackievirus A6, A10 and A16 are the most common causes of HFMD outbreaks in Europe. Enterovirus 71, has also been associated with cases and with outbreaks of the disease. Southeast Asia has recently seen an increase in HFMD due to Enterovirus 71. This is a cause of concern as this virus has shown a higher incidence of neurologic involvement and fatal cases of encephalitis have occurred during outbreaks. However, these serious outcomes are very rare.

Symptoms
HFMD is one of the most common causes of mouth sores in children. Small lesions can erupt anywhere in the mouth cavity and develop into yellow ulcers with a red “halo”. They are painful and interfere with eating. Shortly following the appearance of mouth lesions, a skin rash develops on the hands and/or feet in about three-quarters of patients. HFMD is also characterised by a brief fever, possibly alongside a poor appetite, abdominal pain, malaise and, frequently, a sore throat. Symptoms usually last for 7-10 days.

Complications
HFMD is generally a mild illness that resolves without treatment. The most common complication with children is dehydration as the painful mouth ulcers can interfere with fluid intake. At times patients have a high fever, diarrhoea and joint pain.

Diagnosis
Generally it is a clinical diagnosis. Viral testing can be done on faeces, throat swab or swab from lesion.

How is it spread?
HFMD is spread from person to person, normally through direct contact with saliva or nasal secretions. It can also be spread through faeces, droplets and through direct contact with the fluid in blisters.

People most at risk
HFMD mostly affects children younger than 10 years of age and is most common (and generally more severe) in infants and children between the ages of one and four years.

Treatment
Medication is normally restricted to symptom management, such as painkillers, to manage fever and the discomfort caused by mouth ulcers.

Exclusion from school/nursery
Children who are ill should be kept away from school/nursery. There is no need to keep a child out until the last blister has disappeared if the child is otherwise well.

Preventing spread
A good standard of hand, personal and food hygiene should be maintained and care taken when handling articles contaminated with respiratory secretions or faeces. Hands should be washed after contact with any of the above.

The National Virus Reference Laboratory (NVRL) and the Health Protection Surveillance Centre (HPSC) in Ireland have requested the following testing of any cases of HFMD, to identify if Enterovirus 71 is circulating in Ireland at this time:
1. Faecal sample
2. Throat swab (viral swab, similar to swab used for influenza testing)
3. Swab of lesions (viral swab, similar to swab used for influenza testing)
Please include as clinical details – “HFMD ?Enterovirus 71”
We have recently had a number of reports of scabies infestations from various settings in Cork and Kerry. Scabies is a contagious infection caused by a mite, *Sarcoptes scabiei var. hominis*. The newly mated female burrows through the skin, often at the finger webs, wrists and elbows. Eggs are laid in the burrows at a rate of 2-3 per day for up to 2 months. Eggs mature, and the larvae emerge from the eggs after 3-4 days after they have been laid. The entire life cycle can be completed in 10-14 days, and mites live for around 30 days.

The incubation period for a first infection is usually 2-4 weeks in people without previous exposure, as the mites faecal contamination takes time to cause an allergic reaction. Although the major symptoms are dermal, it should be remembered that they are produced by systemic involvement, and presentation depends on the immune status of the patient.

**Classical Scabies**

In the so-called classical form of the disease the itch, rash and papules are often the only symptoms. These eruptions may be easily obscured by the patient’s frequent need to scratch, resulting in excoriation, eczematisation and ultimately lichenification of affected areas if left untreated for long enough. Mites are normally found on the hands, particularly the insides and webs of fingers, wrists, elbows, feet, male genitalia, buttocks and axillae, in descending order of frequency. In contrast, the allergic rash occurs around the midriff, insides of the thighs, axillae, buttocks, lower arms and legs. The rash may not appear in all these areas at once, but it is always bilaterally symmetrical, affecting both sides of the body.

**Crusted (or Norwegian) Scabies**

Less commonly, especially if there is any degree of immune debility, the infection may change presentation. In some patients, the keratinised layers of the skin become thickened and hyperkeratotic. This may appear ichthyosiform or merely crusty in patches, but under the surface of the thickening the mites survive in greater than normal numbers. Any crusts that dislodge will be full of mites that may be contagious to other people. Most outbreaks of scabies in psychiatric hospitals, nursing homes and other long-stay facilities can be traced to one or more undiagnosed cases of crusted scabies.

Patients most likely to develop the crusted form of the disease include the elderly, alcoholics, those with Down’s syndrome, those undergoing transplant or other immunosuppressive therapy, and those with AIDS.

**Diagnoses**

The identification of a burrow with the mite at one end is diagnostic. This usually requires the assistance of a hand lens magnified eight or 10 times and a good light. In practice, the burrows are hard to find. The distribution of the rash and a history of intense itching, particularly at night, are usually indicative of classical scabies, making this type the easiest to diagnose.

**Treatment**

- Permethrin is commonly recommended for treatment of scabies. Malathion may also be used.
- Treatment is also recommended for all household family contacts and all who have had skin contact with someone with scabies for more than 5 to 10 minutes, e.g. partner, boyfriend, girlfriend, children etc.
- For classical scabies two treatments are recommended, one week apart.
- Asymptomatic contacts, as outlined above, should receive at least 1 application of treatment.
- Patients with crusted scabies may require 2 or 3 applications of treatment on consecutive days to ensure that enough penetrates the skin crusts to kill all the mites.
- For details of cautions, side effects and recommended application time for each product please refer to the specific product information.
- Even with fastidious treatment, the cure rate is not 100%. Most apparent failures are due to either inadequate application of the cream/lotion or failure to identify a contact.
- Patient and contacts should be treated at the same time.
- Sufficient cream/lotion must be given to treat each patient and contact. Larger adults may require two packs.
- Written instructions should be provided on how to apply the treatment. An information leaflet for patients is included with this newsletter. If you would like an electronic copy of the Scabies Patient Information Leaflet please email us at dph@hse.ie
- The itch of scabies persists for some weeks after the infestation has been eliminated and antipruritic treatment may be required. Application of crotamiton can be used to control itching after treatment but caution is necessary if the skin is excoriated. Oral administration of a sedating antihistamine at night may also be useful.