Practice implications of the increase in measles infections

**AUTHOR** Terry Hainsworth, BSc, RGN, is clinical editor, Nursing Times.


The recent increase in measles and one death clearly shows it is still a serious illness and highlights the importance of high levels of vaccination uptake. This article discusses measles infection and prevention and outlines the implications for nurses.

In the first 11 weeks of 2006 nearly as many cases of measles in England and Wales (72) were reported as in the whole of 2005 (77) (Health Protection Agency, 2006a). There has been one measles-related death, and a London trust screened more than 1,000 nurses after six healthcare workers contracted the infection from two children (NT News, 11 April, p4).

**Epidemiology**

Measles is endemic in many countries and globally it is estimated that one million children die from it each year. Most of these cases are in developing countries but measles can also be serious in industrialised countries (HPA, 2006b). It is extremely contagious and almost all non-immune children contract the disease if exposed to the virus (HPA, 2006b). However, due to the effectiveness of vaccination programmes, many younger healthcare professionals have never seen a case of measles (DH, 2002).

**Pathophysiology**

Measles is caused by the paramyxovirus and is spread through airborne droplets. The virus remains active and contagious in the air or on infected surfaces for up to two hours (HPA, 2006b). It has an incubation period of 6–19 days and patients are usually infectious for 1–2 days before any rash appears (Bedford, 2004). Signs and symptoms at the early stages of measles (within 2–3 days of the disease becoming apparent) include:

- Fever;
- Cough and cold;
- Conjunctivitis;
- Feeling generally unwell.

The rash appears on the fourth day and is red and blotchy. After three to four days it becomes brownish and gradually fades. The fever usually subsides before the rash disappears. In the day or two before the rash develops, some people develop Koplik’s spots on the inside of the cheek, which look like grains of salt on a red background (Bedford, 2004).

**Treatment**

There is no specific treatment for measles and management is based on symptom relief. Human normal immunoglobulin can be used to prevent an attack or reduce its severity (HPA, 2006b).

The mortality related with measles is not usually directly due to the infection but its complications. These are more common in children under the age of five or adults over the age of 20 (HPA, 2006b).

People who have not been immunised, especially young children, are at highest risk for measles and its complications (Bedford, 2004).

**Prevention**

Measles vaccination is a routine part of the childhood immunisation schedule in the UK and is given as MMR (measles, mumps and rubella) vaccine. A single dose of the vaccine is about
**Dear Editor,**

I am writing to express my concern about the recent increase in measles cases in the UK. Although the current outbreak of measles is contained, there is a need for vigilance as the disease can quickly spread through populations with low vaccine coverage. The Measles and Other Viral Exanthems (Mumpox) Order 2002 and the Measles and Other Viral Exanthems (Mumpox) Regulations 2002 need to be updated to reflect this new situation.

This year, there has been a significant increase in reports of measles. The World Health Organization (WHO) has reported that the global measles vaccination coverage has fallen below the 90% threshold required to achieve herd immunity. In the UK, the Department of Health (DH) has reported that the coverage for measles, mumps, and rubella (MMR) vaccine has dropped to 80%, which is far below the 95% coverage needed to prevent outbreaks.

TheDH (2005) and the Health Protection Agency (HPA) have emphasized the importance of vaccination in preventing the spread of measles. The HPA’s Immunisation Against Infectious Diseases (IAD) team has developed a new strategy for combating infectious diseases, which includes the recommendation that all children receive at least two doses of MMR vaccine by the age of 2 years.

The DH (2005) has identified pockets of low vaccine uptake in certain areas, such as London, which has resulted in outbreaks that have spread rapidly to other parts of the UK. The DH (2005) has also emphasized the importance of vaccination advice and the role of healthcare professionals in promoting vaccination uptake.

In conclusion, it is crucial that we take immediate action to prevent the spread of measles. This includes increasing vaccine coverage, particularly in areas with low uptake, and ensuring that healthcare professionals are adequately trained to provide accurate and up-to-date information about vaccination.

Yours sincerely,

[Signature]

---

**REFERENCES**


This article has been double-blind peer-reviewed.

For related articles on this subject and links to relevant websites see www.nursingtimes.net

**Nursing implications**

The result of low levels of vaccine uptake is that cases of measles will increasingly be presenting to healthcare professionals. It is important therefore to be aware of the signs and symptoms. Measles is a notifiable condition and so there is a statutory duty to notify the local health protection unit of suspected cases. Where possible all notified cases should be confirmed and this can be done through non-invasive testing to detect specific antibodies in saliva samples. This should be done between one and six weeks after the onset of rash or parotid swelling. Advice on the procedure can be obtained from the local health protection unit (DH, 1996).

Prevention by immunisation is the key to protection from measles and any parent seeking this for a child who has not been immunised should be promptly offered an MMR jab. In addition healthcare professionals all have a responsibility to dispel the myths about MMR immunisation. Reassurance to parents can begin with an explanation of the long and rigorous process of testing that all vaccines go through before they can be licensed (Diggle, 2005).

Current vaccination rates in the UK, and particularly in London, are now well below the level for herd immunity (Fig 1). Rates stand at 84% in England, 85.9% in Wales, 90.7% in Scotland and 90.6% in Northern Ireland. Several areas achieved less than 80% coverage for MMR including all five London strategic health authorities (HPA, 2005). Mathematical modelling has shown that if this low level of MMR coverage continues in the UK, measles will re-establish itself as a frequently occurring disease (Jansen et al, 2003).

The current measles outbreak is one of several that have been reported since 2000, many of which have been shown to be the result of the low uptake of vaccine (Morgan et al, 2003; Hanratty et al, 2000).