key points

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Diarrhoea and vomiting are common symptoms in children in the community. Most children will have uncomplicated infective gastroenteritis and will recover spontaneously within a few days. In the majority of cases all that is required is some basic advice on management and appropriate reassurance. However, GPs need to be able to recognise the symptoms and signs requiring more active intervention.

In many children with symptoms of presumed infective gastroenteritis no causative organism can be isolated but where a pathogen is found viral causes are most frequent.

The combination of sudden onset diarrhoea and vomiting in a previously well child is nearly always caused by infective gastroenteritis. Atypical symptoms such as bilious vomiting and bloody stools should raise the suspicion of alternative diagnoses.

Key aspects of examination which may indicate alternative diagnoses in a child with diarrhoea and vomiting include: temperature >38°C in infants up to 3 months and >39°C in older children, shortness of breath or tachypnoea, drowsiness or irritability and abdominal distension with significant tenderness and/or rebound.

It is only possible to distinguish the absence of any clinical signs of dehydration from signs that dehydration is present and signs of clinical shock. Some children are likely to be more at risk of dehydration than others. Factors associated with greater vulnerability include: younger age (especially under one year); low birthweight; frequent vomiting; frequent diarrhoeal stools; inability to tolerate oral fluids; and prior malnutrition or illness.

Most children with diarrhoea and vomiting caused by suspected gastroenteritis do not require any investigation but stool culture should be considered by GPs in the following situations: the child may have acquired the infection abroad; diarrhoea has not improved by day 7 of the illness; there is uncertainty about the diagnosis of gastroenteritis; or there is blood or mucus in the stool.

The most important principle in the management of diarrhoea and vomiting is to prevent dehydration or to correct fluid losses as early as possible. Breastfeeding and usual fluids should be continued where possible and oral rehydration salt (ORS) solutions used to compensate for excessive loss. Where a child has some early signs of dehydration, an additional 50ml/kg ORS solution should be given over a period of four hours for rehydration.

There is insufficient evidence of safety and cost-effectiveness to advocate the use of symptomatic measures. Antibiotic treatment is only rarely indicated for the treatment of diarrhoea and vomiting.