Chapter 14
Vaccines

1 Vaccines

1.1 Impaired immune response

Immunosuppressed patients should not be given vaccines as immune response may be reduced, and generalised infection may occur with live vaccines. Any infants exposed to TNF-a inhibitor should have any live vaccines differed until the age of 6 months.

In patients taking immunosuppressive drugs e.g. high dose corticosteroids, cancer chemotherapy, specialist advice should be sought.

1.2 Predisposition to neurological problems

Increased risk of febrile convulsions occurring during fever, when personal or family history exists. In patients without neurological deterioration, immunisation is recommended. Post-immunisation antipyretics should be given to control fever and reduce the risk of febrile convulsions.

1.3 Post-immunisation pyrexia

Paracetamol

Child 2–3 months 60 mg as a single dose repeated once after 4–6 hours if necessary

Ibuprofen

Child 2–3 months 50 mg as a single dose repeated once after 6 hours if necessary

1.4 Allergy and cross-sensitivity

Contraindicated in patients with confirmed anaphylaxis to preceding vaccine dose containing the same antigens or same vaccine components.

1.5 Pregnancy and breastfeeding

Live vaccines should not be administered to pregnant women due to risk of foetal infection.

Although there is a theoretical risk of live vaccine being present in breast milk, vaccination is not contraindicated.

1.6 Directions for administration

Alcohol disinfectant should be allowed to evaporate before administration to prevent inactivation of vaccine. If 2 or more vaccines require administration, they can be administered together at a different site at least 2.5cm apart, or on another limb. Vaccines should not be give IV; intramuscular route should not be used in patients with bleeding disorders, instead deep subcutaneous administration is advised.

1.7 Handling and storage

Refrigerated storage is usually necessary between 2 and 8°C. Vaccines must not be allowed to freeze, and must be protected from light. Unused vaccines should be incinerated at a disposal contractor.

2 MMR (mumps, measles and rubella)

2.1 MMR - bowel disease and autism

There is no evidence of a link between MMR vaccination and bowel disease or autism. The Chief Medical Officers have advised that the MMR vaccine is the safest and best way to protect children against measles, mumps, and rubella.

2.2 Idiopathic thrombocytopenic purpura

Rare risk following MMR vaccination, usually within 6 weeks of the first dose. The risk is much less than the risk after infection with wild measles or rubella virus. Children who develop idiopathic thrombocytopenic purpura within 6 weeks of the first dose of MMR should undergo serological testing before the second dose is due.

2.3 Post-vaccination aseptic meningitis

Rare risk following vaccination with MMR vaccine; complete recovery normally occurs.

2.4 Hypersensitivity to egg

MMR vaccine can be given safely even when the child has had an anaphylactic reaction to egg. Children with a confirmed anaphylactic reaction to the MMR vaccine should be assessed by a specialist.