Hiberix

215713

QUALITATIVE AND QUANTITATIVE COMPOSITION

Hiberix is a lyophilised vaccine of purified polyribosyl-ribitol-phosphate capsular polysaccharide (PRP) of Hib, covalently bound to tetanus toxoid.
The Hib polysaccharide is prepared from Hib, strain 20,752 and after activation with cyanogen bromide and derivatisation with an adipic hydrazide spacer is coupled to tetanus toxoid via carbodiimide condensation. After purification the conjugate is lyophilised in the presence of lactose as stabiliser.
Hiberix meets the WHO requirements for the manufacture of biological substances and of Hib conjugated vaccines.
Each single dose of vaccine is formulated to contain 10 µg of purified capsular polysaccharide covalently bound to approximately 30 µg tetanus toxoid.

CLINICAL PARTICULARS

Therapeutic indications
Hiberix is indicated for active immunisation of all infants from the age of 6 weeks against disease caused by Hib.
Hiberix does not protect against disease due to other types of *H. influenzae* nor against meningitis caused by other organisms.

Posology
The primary vaccination schedule consists of three doses in the first 6 months of life and can start from the age of 6 weeks. To ensure a long term protection, a booster dose is recommended in the second year of life.
Infants between the ages of 6 and 12 months previously unvaccinated should receive 2 injections, given with an interval of one month, followed by a booster in the second year of life. Previously unvaccinated children aged 1-5 years should be given one dose of vaccine.
As vaccination schemes vary from country to country, the schedule for each country may be used in accordance with the different national recommendations.

Method of administration
The reconstituted vaccine is for intramuscular injection. However, it is good clinical practice that in patients with thrombocytopenia or bleeding disorders the vaccine should be administered subcutaneously.

Contra-indications
Hiberix should not be administered to subjects with known hypersensitivity to any component of the vaccine, or to subjects having shown signs of hypersensitivity after previous administration of Hib vaccines.
The presence of a minor infection, however, is not a contra-indication for vaccination.

Special warnings and special precautions for use
As with other vaccines, the administration of **Hiberix** should be postponed in subjects suffering from acute severe febrile illness. Appropriate medical treatment and supervision should always be readily available in case of a rare anaphylactic event following the administration of the vaccine. For this reason the vaccinee should remain under medical supervision for 30 minutes after immunisation.
Human Immunodeficiency Virus (HIV) infection is not considered as a contra-indication for **Hiberix**.
Although limited immune response to the tetanus toxoid component may occur, vaccination with **Hiberix** alone does not substitute for routine tetanus vaccination.
Excretion of capsular polysaccharide antigen in the urine has been described following receipt of Hib vaccines, and therefore antigen detection may not have a diagnostic value in suspected Hib disease within 1-2 weeks of vaccination.
Hiberix should under no circumstances be administered intravenously.

Interactions with other medicaments and other forms of interaction
Hiberix can be administered either simultaneously or at any time before or after a different inactivated or live vaccine.
Hiberix can be mixed in the same syringe with GlaxoSmithKline vaccines **Infanrix** (DTPa vaccine), or **Tritanrix HB** (DTPw-HB vaccine). Other injectable vaccines should always be administered at different injection sites.
As with other vaccines it may be expected that in patients receiving immunosuppressive therapy or patients with immunodeficiency, an adequate response may not be achieved.

Pregnancy and lactation
Adequate human data on use during pregnancy or lactation and adequate animal reproduction studies are not available.

Undesirable effects
In controlled clinical studies, signs and symptoms were actively monitored and recorded on diary cards following the administration of the vaccine.
Of the local solicited symptoms the most frequently reported within the first 48 hours was mild redness at the injection site which resolved spontaneously. Other local solicited symptoms reported were mild swelling and pain at the injection site.
The general symptoms which have been solicited and reported within the first 48 hours were mild and resolved spontaneously. These include fever, loss of appetite, restlessness, vomiting, diarrhoea and unusual crying. As for all Hib vaccines, these general symptoms have also been reported when administered concomitantly with other vaccines.
Very rarely allergic reactions, including anaphylactoid reactions, have been reported.

PHARMACOLOGICAL PROPERTIES

A titre of ≥ 0.15 µg/ml was obtained in 95-100% of infants one month after the completion of the vaccination course. A titre of ≥ 0.15 µg/ml was obtained in 100% of infants one month after the booster dose (94.7% with a titre of ≥ 10 µg/ml).

PHARMACEUTICAL PARTICULARS

Incompatibilities
Hiberix can be mixed in the same syringe with GlaxoSmithKline vaccines **Infanrix** (DTPa vaccine), or **Tritanrix HB** (DTPw-HB vaccine). Other injectable vaccines should always be administered at different injection sites.

Shelf-life
The expiry date of the vaccine is indicated on the label and packaging.

Special precautions for storage
The lyophilised vaccine has to be stored at +2°C to +8°C and has to be protected from light. The lyophilised vaccine is not affected by freezing.
The diluent can be stored in the refrigerator (+2°C to +8°C) or at ambient temperatures (up to 25°C) and should not be frozen.
While recommended storage conditions should be respected, data has demonstrated that the vaccine remains stable under the following specific conditions:

- lyophilised product: stored at 37°C for up to 24 months
- reconstituted product: stored at 37°C for up to 24 hours
  stored at 21°C for up to 5 days

Instructions for use/handling

*How to use **Hiberix***
Hiberix vaccine is presented as a white Hib pellet in a vial, with a clear and colourless sterile diluent (saline) in either a second vial or a prefilled syringe.
The diluent and reconstituted vaccine should be inspected visually for any foreign particulate matter and/or variation of physical aspects prior to administration. In the event of either being observed, discard the diluent or reconstituted vaccine.
The vaccine must be reconstituted by adding the entire contents of the supplied container of diluent to the vial containing the pellet. After the addition of the diluent to the pellet, the mixture should be well shaken until the pellet is completely dissolved in the diluent.
When using a multidose vial, each dose should be taken with a sterile needle and syringe. As with other vaccines, a dose of vaccine should be withdrawn under strict aseptic conditions and precautions taken to avoid contamination of the contents.
A new needle should be used to administer the vaccine.
After reconstitution, the vaccine should be injected promptly.

*To mix **Hiberix** with **Tritanrix HB** or **Infanrix***
Hiberix vaccine may be reconstituted either with **Tritanrix HB** or with **Infanrix** for simultaneous administration via one injection.
Tritanrix HB and **Infanrix** are presented as suspensions. Upon storage, a white deposit and clear supernatant may be observed. The vaccine should be well shaken in order to obtain a homogeneous turbid white suspension and visually inspected for any foreign particulate matter and/or variation of physical aspect prior to administration. In the event of either being observed, discard the vaccine.
Discard the sterile diluent provided with **Hiberix**.
The combined DTPw-HB-Hib or DTPa-Hib vaccines must be reconstituted by adding the entire contents of either a **Tritanrix HB** or **Infanrix** monodose container to the monodose vial containing the white **Hiberix** pellet. After the addition of **Tritanrix HB** or **Infanrix** to the **Hiberix** pellet, the mixture should be well shaken until the **Hiberix** pellet is completely dissolved in either the **Tritanrix HB** or **Infanrix** suspension.
The reconstituted combined vaccine should be inspected visually for any foreign particulate matter and/or variation of physical aspects prior to administration. In the event of either being observed, discard the reconstituted vaccine.
A new needle should be used to administer the vaccine. After reconstitution, the vaccine should be injected promptly.

Presentations
For further information, refer to manufacturer.