Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

REVAXIS Suspension for injection in pre-filled syringe Diphtheria, tetanus and poliomyelitis (inactivated) vaccine (adsorbed, reduced antigen(s) content)

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each dose (0.5 ml) contains:
Active ingredients:
Purified diphtheria toxoid ..... not less than 2 IU[1] (5 Lf)
Purified tetanus toxoid ..... not less than 20 IU[1] (10 Lf)

Inactivated poliomyelitis virus type 1[2]..... 29 D antigen units[3]
Inactivated poliomyelitis virus type 2[2].....7 D antigen units[3]
Inactivated poliomyelitis virus type 3[2].....26 D antigen units[3]

aluminium hydroxide as adsorbant..... 0.35 mg (as aluminium)
[1] As lower confidence limit (p = 0.95) of activity measured according to the assay described in the European Pharmacopoeia.
[2] Cultivated on Vero cells.
[3] These antigen quantities are strictly the same as those previously expressed as 40-8-32 D-antigen units, for virus type 1, 2 and 3 respectively, when measured by another suitable immunochemical method.

Excipient with known effect:
Each dose (0.5 ml) contains approximately 10 µg of phenylalanine.

For the full list of excipients, see section 6.1

3 PHARMACEUTICAL FORM

Suspension for injection in pre-filled syringe.
The vaccine has a cloudy white appearance

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

REVAXIS is indicated for active immunisation against diphtheria, tetanus and poliomyelitis in children from six years of age, adolescents and adults as a booster following primary vaccination.
REVAXIS is not intended for primary immunisation.

4.2 Posology and method of administration

Posology
The dose for children from the age of six years, adolescents and adults is 0.5 ml.

REVAXIS should be administered in accordance with official recommendations and/or local practice regarding the use of vaccines that provide reduced dose diphtheria toxoid plus tetanus toxoid in combination with inactivated poliomyelitis viruses.

REVAXIS may be used as a booster following primary immunisation with inactivated or oral poliomyelitis vaccines (IPV or OPV). There are no clinical data available regarding the use of REVAXIS in individuals with an incomplete, or no, history of a primary series of diphtheria and tetanus toxoids or of vaccinations against poliomyelitis.

Although REVAXIS has not been studied in subjects with tetanus-prone injuries, studies have shown that it induces similar tetanus antitoxin titres to Td vaccine. REVAXIS may therefore be used in subjects with tetanus-prone injuries if concomitant vaccination against diphtheria and poliomyelitis is desirable.

Method of Administration
REVAXIS is for intramuscular injection only. The recommended injection site is the deltoid region.
REVAXIS must not be administered by intradermal or intravascular routes.
Under certain conditions (e.g. bleeding disorders) REVAXIS may be administered as a deep subcutaneous injection.
For further instructions for use *see section 6.6.*

4.3 Contraindications

Hypersensitivity to diphtheria, tetanus or poliomyelitis vaccines or to any of the excipients listed in section 6.1.
Hypersensitivity to neomycin, streptomycin or polymyxin B. These are used during production and traces may remain in the vaccine.
Acute severe febrile illness. The presence of a minor infection is not a contraindication.
Neurological complications following an earlier immunisation against diphtheria and/or tetanus.

4.4 Special warnings and precautions for use

As for all vaccines, appropriate medical treatment should be readily available for immediate use in case of an anaphylactic reaction following vaccination.

REVAXIS should under no circumstances be administered intravascularly. The intradermal route must not be used either.

The immunogenicity of the vaccine could be reduced in immunosuppressed subjects. Where possible, vaccination should be postponed until immune function has recovered. However, vaccination of subjects with chronic immunodeficiency, such as AIDS, is recommended even if the antibody response might be limited.

REVAXIS must be administered with caution to subjects with thrombocytopenia or a bleeding disorder since bleeding may occur following an intramuscular administration to such subjects.

In order to minimise the risk of adverse events, REVAXIS should not be administered to subjects who completed a primary vaccination course or received a booster of a vaccine containing diphtheria or tetanus toxoids within the previous five years.

If Guillain-Barré syndrome or brachial neuritis has occurred following receipt of prior vaccine containing tetanus toxoid, the decision to give any vaccine containing tetanus toxoid should be based on careful consideration of the potential benefits and possible risks.

Syncope can occur following, or even before, any vaccination as a psychogenic response to the needle injection. Procedures should be in place to prevent falling and injury and to manage syncope.

REVAXIS contains 10 microgram phenylalanine in each 0.5 ml dose which is equivalent to 0.17 microgram/kg for a 60 kg person. Phenylalanine may be harmful for people with phenylketonuria (PKU), a rare genetic disorder in which phenylalanine builds up because the body cannot remove it properly.

REVAXIS contains 2 milligram of alcohol (ethanol) in each 0.5ml dose. The small amount of alcohol in this medicine will not have any noticeable effects.

REVAXIS contains less than 1mmol of potassium (39 mg) and sodium (23 mg) per dose, that is to say essentially 'potassium-free' and 'sodium-free'.

Traceability:
In order to improve the traceability of biological medicinal products, the name and the batch number of the administered product should be clearly recorded.

4.5 Interaction with other medicinal products and other forms of interaction

REVAXIS may be administered at the same time as other vaccines or immunoglobulins provided that the injections are made at separate site.
Subjects who are taking immunosuppressive agents may not respond to REVAXIS (*see section 4.4)*.

4.6 Fertility, pregnancy and lactation

Pregnancy
The effect of REVAXIS on embryo-foetal development has not been assessed in animals. No teratogenic effect of vaccines containing diphtheria or tetanus toxoids, or inactivated poliovirus has been observed following use in pregnant women. However, this vaccine should not be administered to pregnant women unless it is considered urgent to boost immunity.

Breastfeeding
REVAXIS may be administered to breastfeeding women.

Fertility
No fertility studies were performed.

4.7 Effects on ability to drive and use machines

Vertigo has been reported following vaccination.

4.8 Undesirable effects

a. Summary of the safety profile

In clinical studies, the most common events occurring after vaccine administration were local injection site reactions (pain, erythema, induration and oedema) reported by 65 to 80% of subjects in each trial. These usually had their onset within the 48 hours following vaccination and persisted for 1 to 2 days. These reactions are sometimes accompanied by injection site nodules.

b. Tabulated list of adverse reactions

The adverse reactions are ranked under headings of frequency using the following convention:
Very common: (≥1/10)
Common: (≥1/100 to <1/10)
Uncommon: (≥1/1,000 to <1/100)
Rare: (≥1/10,000 to <1/1,000)
Very rare: (<1/10,000)
Not known (cannot be estimated from the available data

Based on spontaneous reporting, these adverse events have been very rarely reported following commercial use of Revaxis. Because events are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to vaccine exposure.

Blood and lymphatic system disorders
· *Uncommon:*
- Lymphadenopathy

Immune system disorders
· *Not known:*
- Systemic allergic / anaphylactic reactions including shock

Nervous system disorders

· *Common:*
- Headache

· *Not known:*
- Convulsions
- Guillain Barre syndrome
- Brachial neuritis
- Transient paresthesia and hypoesthesia of the vaccinated limb
- Vasovagal syncope

Ear and labyrinth disorders
· *Common:*
- Vertigo

Gastrointestinal disorders
· *Common:*
- Nausea / vomiting

· *Not known:*
- Abdominal pain
- Diarrhoea

Skin and subcutaneous tissue disorders
· *Not known:*
- Allergic-type reactions such as urticaria, various types of rash, and face oedema

Musculoskeletal and connective tissue disorders
· *Uncommon:*
- Myalgia

· *Rare:*
- Arthralgia

· *Not known:*
- Pain in vaccinated limb

General disorders and administration site conditions
· *Very common:*
- Local reactions (injection site pain, injection site erythema, injection site induration, injection site oedema and injection site nodule)

· *Common:*
- Pyrexia

· *Uncommon:*
- Malaise

· *Not known*
  - Large injection site reaction (>50 mm), including extensive limb swelling from the injection site beyond one or both joints have been reported. These reactions start within 24-72 hours after vaccination, may be associated with erythema, warmth, tenderness or pain at the injection site and resolve spontaneously within 3-5 days.
  Pallor, asthenia, usually occurring and resolving within a few days, chills, influenza-like symptoms, mostly the same day as the vaccination

Reporting of suspected adverse reactions
Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected

adverse reactions via HPRA Pharmacovigilance, Earlsfort Terrace, IRL - Dublin 2; Tel: +353 1 6764971 ; Fax: +353 1 6762517 .
Website: www.hpra.ie; E-mail: medsafety@hpra.ie.

4.9 Overdose

Not documented.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Vaccine against diphtheria, tetanus and poliomyelitis
ATC code: J07CA01

During clinical studies, the immunogenicity of REVAXIS was evaluated in 661 healthy subjects aged six to 78 years. In subjects vaccinated within ten years of a previous dose of diphtheria/tetanus/poliomyelitis vaccine, more than 99% achieved protective antibody levels for diphtheria, tetanus and poliomyelitis (types 1, 2 and 3) one month after receiving REVAXIS.

In a clinical study carried out in 113 healthy subjects aged 40 to 78 years who received their last vaccination against diphtheria, tetanus and poliomyelitis more than ten years ago, REVAXIS elicited a satisfactory booster response.
Antibody persistence over a two-year period was assessed in 113 healthy adults. Two years after receiving a dose of REVAXIS the proportions of subjects with protective titres against diphtheria, tetanus and poliomyelitis (types 1, 2 and 3) were 100%, 94.7% and 100% respectively. In a clinical study in 151 healthy children aged six to nine years, antibody titres at one month after a dose of REVAXIS were approximately three-fold higher than those seen in the healthy adults at two years post-dose. Therefore, it may be anticipated that antibody levels in children would be at least as good as those observed in adults at two years post-dose.

5.2 Pharmacokinetic properties

Evaluation of pharmacokinetic properties is not required for vaccines.

5.3 Preclinical safety data

Preclinical data reveal no special hazard for humans based on conventional studies of safety, specific toxicity and compatibility of ingredients.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Phenoxyethanol
Ethanol anhydrous
Formaldehyde
Acetic acid and/or sodium hydroxide (for pH adjustment)
Medium 199*
Water for injections
* Medium 199 is a complex medium of amino acids including phenylalanine, mineral salts, vitamins, polysorbate 80, hydrochloric acid and/or sodium hydroxide (for pH adjustment) and other substances diluted in water for injections.

6.2 Incompatibilities

In the absence of compatibility studies, the vaccine must not be mixed with other medicinal products.

6.3 Shelf life

3 years.

6.4 Special precautions for storage

Store in a refrigerator (2°C to 8°C).
Do not freeze. Discard the vaccine if it has been frozen.

6.5 Nature and contents of container

0.5 ml of suspension in pre-filled syringe (0.5 ml, type I glass) with a plunger-stopper (elastomer: chlorobutyl) and attached needle and needle-guard (elastomer: synthetic polyisoprene).
0.5 ml of suspension in pre-filled syringe (0.5 ml, type I glass) with a plunger-stopper (elastomer: chlorobutyl) and tip-cap (elastomer: synthetic isoprene-bromobutyl), without needle.
Packs of 1 and 10 syringes.
0.5 ml of suspension in pre-filled syringe (0.5 ml, type I glass) with a plunger-stopper (elastomer: chlorobutyl) and tip-cap (elastomer: synthetic isoprene-bromobutyl), with 1 or 2 separate needles (for each syringe).
Packs of 1 and 10 syringes.
Not all pack sizes and presentations may be marketed.

6.6 Special precautions for disposal and other handling

For needle free syringes, the needle should be pushed firmly on to the end of the pre-filled syringe and rotated through 90 degrees.
The vaccine's normal appearance is a cloudy white suspension that may sediment during storage. Shake the pre-filled syringe well to distribute uniformly the suspension before administering the vaccine.
Parenteral biological products should be inspected visually for extraneous particulate matter and/or discolouration prior to administration. In the event of either being observed, discard the vaccine. Any unused product or waste material should be disposed of in accordance with local requirements.

7 MARKETING AUTHORISATION HOLDER

Sanofi Pasteur
14 Espace Henry Vallée
69007
Lyons
France

8 MARKETING AUTHORISATION NUMBER

PA2131/007/001

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 18 February 2000
Date of last renewal: 04 April 2008

10 DATE OF REVISION OF THE TEXT

April 2023