

ANNEX I
SUMMARY OF PRODUCT CHARACTERISTICS

▼ This medicinal product is subject to additional monitoring. This will allow quick identification of new safety information. Healthcare professionals are asked to report any suspected adverse reactions. See section 4.8 for how to report adverse reactions.

1. NAME OF THE MEDICINAL PRODUCT

Flucelvax Tetra - suspension for injection in pre-filled syringe
Influenza vaccine (surface antigen, inactivated, prepared in cell cultures)

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Influenza virus surface antigens (haemagglutinin and neuraminidase), inactivated, of the following strains*:

A/xxxxxx (H1N1) - like strain (<i>reassortant used</i>)	15 micrograms HA**
A/xxxxx (H3N2) - like strain (<i>reassortant used</i>)	15 micrograms HA**
B/xxxxx – like strain (<i>reassortant used</i>)	15 micrograms HA**
B/xxxxx – like strain (<i>reassortant used</i>)	15 micrograms HA**

per 0.5 ml dose

.....
* propagated in Madin Darby Canine Kidney (MDCK) cells
** haemagglutinin

The vaccine complies with the World Health Organisation (WHO) recommendation (northern hemisphere) and EU recommendation for the xxxx/xxxx season.

Flucelvax Tetra may contain traces of beta-propiolactone, cetyltrimethylammonium bromide, and polysorbate 80.

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Suspension for injection in pre-filled syringe (injection).
Clear to slightly opalescent liquid.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Prophylaxis of influenza in adults and children from 9 years of age.

Flucelvax Tetra should be used in accordance with official recommendations.

4.2 Posology and method of administration

Posology

Adults and children from 9 years of age:

A single 0.5 mL dose.

The safety and efficacy of Flucelvax Tetra in children from birth to less than 9 years of age has not been established. Currently available safety and immunogenicity data are described in sections 4.8 and 5.1 but no recommendation on posology can be made.

Method of administration

For intramuscular injection only.

The preferred site for injection is the deltoid muscle of the upper arm.

The vaccine must not be injected intravenously, subcutaneously or intradermally and must not be mixed with other vaccines in the same syringe.

For instructions on the handling of the vaccine before administration, see section 6.6.

4.3 Contraindications

Hypersensitivity to the active substance, to any of the excipients listed in section 6.1, or to possible trace residues such as beta-propiolactone, cetyltrimethylammonium bromide, and polysorbate 80.

4.4 Special warnings and precautions for use

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.

Appropriate medical treatment and supervision should always be readily available in case of a rare anaphylactic event following the administration of the vaccine.

Vaccination should be postponed in patients with acute febrile illness until the fever is resolved.

As with all injectable vaccines, Flucelvax Tetra must be administered with caution to individuals with thrombocytopenia or a bleeding disorder since bleeding may occur following an intramuscular administration.

Syncope (fainting) can occur following, or even before, any vaccination as a psychogenic response to the needle injection. This can be accompanied by several neurological signs such as transient visual disturbance, paraesthesia and tonic-clonic limb movements during recovery. It is important that procedures are in place to avoid injury from faints.

Antibody response in patients with endogenous or iatrogenic immunosuppression may be insufficient to prevent influenza.

A protective immune response may not be elicited in all vaccine recipients.

4.5 Interaction with other medicinal products and other forms of interaction

No interaction studies have been performed with Flucelvax Tetra. There are no data available on co-administration of Flucelvax Tetra with other vaccines. Based on clinical experience with cell-based trivalent influenza vaccine (TIVc), Flucelvax Tetra can be given at the same time as other vaccines.

4.6 Fertility, pregnancy and lactation

Pregnancy

There are limited data from the use of Flucelvax Tetra in pregnant women. However inactivated influenza vaccines can be used in all stages of pregnancy. For egg-derived influenza vaccines larger datasets on safety are available for the second and third trimester, compared with the first trimester; however, data from worldwide use of influenza vaccine do not indicate any adverse foetal and maternal outcomes attributable to the vaccine.

There are no reproductive and developmental toxicology studies with Flucelvax Tetra. Reproductive and developmental toxicology data from cell-based trivalent influenza vaccine (TIVc) do not predict an increased risk of developmental abnormalities.

Breast-feeding

It is unknown whether Flucelvax Tetra is excreted in human milk. No effects on breast fed newborn/infant are anticipated. Flucelvax Tetra may be used during lactation.

Fertility

No human fertility data are available. Animal data, with cell-based trivalent influenza vaccine (TIVc), have not shown effects on female fertility. Male fertility has not been assessed in animals.

4.7 Effects on ability to drive and use machines

Flucelvax Tetra has no or negligible influence on the ability to drive and use machines.

4.8 Undesirable effects

Summary of the safety profile

The safety of Flucelvax Tetra in adults 18 years and older was evaluated in a randomised, controlled study (V130_01), in which 1334 subjects received Flucelvax Tetra. Similar rates of solicited local and systemic adverse reactions were reported in subjects who received Flucelvax Tetra and cell-based trivalent influenza vaccine comparator in this clinical trial.

The most commonly reported ($\geq 10\%$) reactions in subjects who received Flucelvax Tetra were pain at the injection site (34%), headache (14%), fatigue (14%), myalgia (14%), erythema (13%) and induration (10%).

The incidence of some adverse reactions were considerably lower among subjects ≥ 65 years of age when compared to subjects 18 to < 65 years of age (see table below).

Tabulated list of adverse reactions

Adverse reactions reported are listed according to the following frequency categories: Very common ($\geq 1/10$); Common ($\geq 1/100$ to $< 1/10$); Uncommon ($\geq 1/1,000$ to $< 1/100$), Frequency not known (cannot be estimated from the available data).

Table 1: Adverse reactions reported following vaccination in adults 18 years and older in clinical trials and post-marketing surveillance.

MedDRA System Organ class	Very common (≥1/10)	Common (≥1/100 to <1/10)	Uncommon (≥1/1,000 to <1/100)	Frequency not known³
Immune system disorders				Allergic or immediate hypersensitivity reactions, including anaphylactic shock
Metabolism and nutrition disorders		Loss of appetite		
Nervous system disorders	Headache ¹			Paraesthesia
Gastrointestinal disorders		Nausea, Diarrhoea, Vomiting ²		
Skin and subcutaneous tissue disorders				Generalised skin reactions including pruritus, urticaria or non-specific rash
Musculoskeletal and connective tissue disorders	Myalgia ¹	Arthralgia		
General disorders and administration site conditions	Injection site pain, Fatigue ¹ , Erythema, Induration ¹	Ecchymosis, Chills	Fever (≥ 38°C)	Extensive swelling of injected limb

¹ Reported as Common in the elderly population 65 years of age and older

² Reported as Uncommon in the elderly population 65 years of age and older

³ Adverse reactions reported from post-marketing surveillance

Paediatric population (9 to less than 18 years of age)

The safety of Flucelvax Tetra in children 4 to less than 18 years of age was evaluated in a randomised, controlled study (V130_03). In this study, 1159 paediatric subjects received Flucelvax Tetra (584 subjects aged >9 to <18 years; 575 subjects aged >4 to <9 years). Children 9 to less than 18 years of age received a single dose of Flucelvax Tetra. Children 4 to less than 9 years of age received one or two doses (separated by 4 weeks) of Flucelvax Tetra based on determination of the subject's prior influenza vaccination history. In this age group, 235 paediatric subjects received one dose and 340 subjects received two doses.

Similar rates of solicited local and systemic adverse reactions were reported in subjects who received Flucelvax Tetra and cell-based trivalent influenza vaccine comparator in this clinical trial.

The most common (≥10%) adverse reactions reported in paediatric subjects of 9 to <18 years of age were injection site pain (58%), headache (22%), erythema (19%), fatigue (18%), myalgia (16%), and induration (15%). Similar rates of local and system adverse reactions were reported in the overall paediatric population 4 to <18 years of age.

Compared to adults 18 years of age and older, paediatric subjects generally reported higher rates of local and systemic adverse reactions.

Paediatric Population (4 to less than 9 years of age)

Flucelvax Tetra is not indicated for use in children less than 9 years of age, see section 4.2. The available safety data in the paediatric population are presented below.

Children less than 9 year of age reported similar rates of adverse reactions compared to older children. In the paediatric population 4 to less than 6 years of age, the following additional solicited adverse reactions were reported: sleepiness (21%), irritability (19%) and change in eating habits (14%).

In children who received a second dose of Flucelvax Tetra or cell-based trivalent influenza vaccine, the incidence of adverse reactions following the second dose of vaccine were similar to those observed with the first dose in this clinical trial.

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 the national reporting system listed in [Appendix V](#).

4.9 Overdose

There are no data for overdose with Flucelvax Tetra.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Influenza vaccine, ATC code: J07BB02

Mechanism of action

Flucelvax Tetra provides active immunisation against four influenza virus strains (two A subtypes and two B types) contained in the vaccine. Flucelvax Tetra induces humoral antibodies against the haemagglutinins. These antibodies neutralise influenza viruses.

Flucelvax Tetra is manufactured using Madin Darby Canine Kidney (MDCK) cells.

Specific levels of haemagglutination inhibition (HI) antibody titres post-vaccination with inactivated influenza vaccine have not been correlated with protection from influenza virus. In some human studies, antibody titres of 1:40 or greater have been associated with protection from influenza illness in up to 50% of subjects.

Antibody against one influenza virus type or subtype confers limited or no protection against another. Furthermore, antibody to one antigenic variant of influenza virus might not protect against a new antigenic variant of the same type or subtype.

Annual revaccination with current influenza vaccines is recommended because immunity declines during the year after vaccination and circulating strains of influenza virus may change from year to year.

Pharmacodynamic effects

Immunogenicity of Flucelvax Tetra in Adults 18 years of age and older

Immunogenicity of Flucelvax Tetra was evaluated in adults 18 years of age and older in a randomised, double-blind, controlled study (V130_01). In this study, subjects received Flucelvax Tetra (N=1334) or one of the two formulations of comparator cell-based trivalent influenza vaccine (TIVc) [TIV1c (N=677) or TIV2c (N= 669)]. The immune response to each of the vaccine antigens was assessed, 21 days after vaccination.

The immunogenicity endpoints were geometric mean antibody titres (GMTs) of haemagglutination inhibition (HI) antibodies response and percentage of subjects who achieved seroconversions, defined as a pre-vaccination HI titre of <1:10 with a post vaccination titre \geq 1:40 or with a prevaccination HI titre of \geq 10 and a minimum 4-fold increase in serum HI antibody titre.

Flucelvax Tetra was noninferior to TIVc. Non-inferiority was established for all 4 influenza strains included in Flucelvax Tetra, as assessed by ratios of GMTs and the differences in the percentages of subjects achieving seroconversion at 3 weeks following vaccination. The antibody response to influenza B strains contained in Flucelvax Tetra was superior to the antibody response after vaccination with TIVc containing an influenza B strain from the alternate lineage. There was no evidence that the addition of the second influenza B strain resulted in immune interference to other strains included in the vaccine.

Age subgroup analyses in subjects 18 to less than 65 years of age and 65 years of age and above confirmed that HI antibody responses (GMT and differences in vaccine group seroconversion rates) met noninferiority immunogenicity criteria 3 weeks following vaccination for all 4 influenza strains in both age groups.

The noninferiority data observed are summarised in Table 2.

Table 2: Noninferiority of Flucelvax Tetra relative to TIVc in adults 18 years of age and above – Per protocol analysis set (V130_01)

		Flucelvax Tetra N = 1250	TIV1c/TIV2c^a N = 635/N =639	Vaccine Group Ratio (95% CI)	Vaccine Group Difference (95% CI)
A/H1N1	GMT (95% CI)	302.8 (281.8-325.5)	298.9 (270.3-330.5)	1.0 (0.9- 1.1)	-
	Seroconversion Rate ^b (95% CI)	49.2% (46.4-52.0)	48.7% (44.7-52.6)	-	-0.5% (-5.3- 4.2)
A/H3N2	GMT (95% CI)	372.3 (349.2-396.9)	378.4 (345.1-414.8)	1.0 (0.9- 1.1)	-
	Seroconversion Rate ^b (95% CI)	38.3% (35.6-41.1)	35.6% (31.9-39.5)	-	-2.7% (-7.2- 1.9)
B1	GMT (95% CI)	133.2 (125.3-141.7)	115.6 (106.4-125.6)	0.9 (0.8- 1.0)	-
	Seroconversion Rate ^b (95% CI)	36.6% (33.9-39.3)	34.8% (31.1-38.7)	-	-1.8% (-6.2- 2.8)
B2	GMT (95% CI)	177.2 (167.6-187.5)	164.0 (151.4-177.7)	0.9 (0.9- 1.0)	-
	Seroconversion Rate ^b (95% CI)	39.8% (37.0-42.5)	35.4% (31.7-39.2)	-	-4.4% (-8.9- 0.2)

Abbreviations: GMT = geometric mean titre; CI = confidence interval.

^a The comparator vaccine for noninferiority comparisons for A/H1N1, A/H3N2 and B1 is TIV1c, for B2 it is TIV2c.

^b Seroconversion rate = percentage of subjects with either a prevaccination HI titre <1:10 and postvaccination HI titre \geq 1:40 or with a prevaccination HI titre \geq 1:10 and a minimum 4-fold increase in postvaccination HI antibody titre.

Bold = Noninferiority criterion met.

Clinical efficacy of cell-based trivalent influenza vaccine (TIVc) against culture-confirmed influenza in adults

The efficacy experience with TIVc is relevant to Flucelvax Tetra because both vaccines are manufactured using the same process and have overlapping compositions.

A multinational, randomised, observer-blinded, placebo-controlled trial (V58P13) was performed to assess clinical efficacy and safety of TIVc during the 2007-2008 influenza season in adults aged 18 to less than 50 years. A total of 11,404 subjects were enrolled to receive TIVc (N=3828), Agrippal (N=3676) or placebo (N=3900) in a 1:1:1 ratio.

TIVc efficacy was defined as the prevention of culture-confirmed symptomatic influenza illness caused by viruses antigenically matched to those in the vaccine compared to placebo. Influenza cases were identified by active and passive surveillance of influenza-like illness (ILI). ILI was defined according to Centers for Disease Control and Prevention (CDC) case definition, i.e., a fever (oral temperature $\geq 100.0^{\circ}\text{F}$ / 38°C) and cough or sore throat. After an episode of ILI, nose and throat swab samples were collected for analysis. Vaccine efficacies against vaccine-matched influenza viral strains, against all influenza viral strains, and against individual influenza viral subtypes were calculated (Table 3).

Table 3: Comparative efficacy of TIVc versus placebo against culture-confirmed influenza by influenza viral subtype (V58P13)

		TIVc (N=3776)		Placebo (N=3843)		Vaccine Efficacy*	
		Attack Rate (%)	Number of Subjects with Influenza	Attack Rate (%)	Number of Subjects with Influenza	%	Lower Limit of One-Sided 97.5% CI
Antigenically Matched Strains							
Overall		0.19	7	1.14	44	83.8	61.0
Individual strains	A/H3N2**	0.05	2	0	0	--	--
	A/H1N1	0.13	5	1.12	43	88.2	67.4
	B**	0	0	0.03	1	--	--
All Culture-Confirmed Influenza							
Overall		1.11	42	3.64	140	69.5	55.0
Individual strains	A/H3N2	0.16	6	0.65	25	75.6	35.1
	A/H1N1	0.16	6	1.48	57	89.3	73.0
	B	0.79	30	1.59	61	49.9	18.2

* Simultaneous one-sided 97.5% confidence intervals for the vaccine efficacy of each influenza vaccine relative to placebo based on the Sidak-corrected score confidence intervals for the two relative risks.

Vaccine Efficacy = (1 - Relative Risk) x 100 %;

** There were too few cases of influenza due to vaccine-matched influenza A/H3N2 or B to adequately assess vaccine efficacy.

Paediatric population

Immunogenicity of Flucelvax Tetra in Children and Adolescents 9 to less than 18 Years of Age

Immunogenicity of Flucelvax Tetra was evaluated in children 9 to less than 18 years of age was evaluated as part of a randomised, double-blind, controlled study (V130_03) that was performed in the paediatric population 4 to less than 18 years of age. In this study, subjects received Flucelvax Tetra (N=1159) or one of the two formulations of comparator cell-based trivalent influenza vaccine (TIVc) [TIV1c (N=593), or TIV2c (N= 580)]. The immune response to each of the vaccine antigens was assessed 21 days after vaccination.

The immunogenicity endpoints were GMTs of HI antibodies response and percentage of subjects who achieved seroconversions (seroconversion rate), defined as a pre-vaccination HI titre of <1:10 with a post vaccination titre \geq 1:40 or with a prevaccination HI titre \geq 1:10 and a minimum 4-fold increase in serum HI antibody titre.

Flucelvax Tetra was noninferior to TIVc in children 4 to less than 18 years of age. Noninferiority was established for all 4 influenza strains included in the Flucelvax Tetra, as assessed by ratios of GMTs and the differences in the percentages of subjects achieving seroconversion at 3 weeks following vaccination. The antibody response to influenza B strains contained in Flucelvax Tetra was superior to the antibody response after vaccination with TIVc containing an influenza B strain from the alternate lineage. There was no evidence that the addition of the second B strain resulted in immune interference to other strains included in the vaccine.

The immunogenicity data in subjects 9 to less than 18 years of age are summarised in Table 4.

Table 4: GMTs and seroconversion rates (with 95% CI) in subjects 9 to <18 years of age, 3 weeks after vaccination with Flucelvax Tetra or TIV1c/TIV2c - Per Protocol Set (V130_03)

		Flucelvax Tetra	TIV1c/TIV2c^a
A/H1N1		N=547	N=272
	GMT (95% CI)	1139 (1045-1242)	1138 (1007-1286)
	Seroconversion Rate^b	70% (66%-74%)	72% (67%-78%)
A/H3N2		N=546	N=272
	GMT (95% CI)	719 (673-767)	762 (694-836)
	Seroconversion Rate^b	42% (38%-47%)	53% (46%-59%)
B1		N=546	N=272
	GMT (95% CI)	200 (185-218)	200 (178-224)
	Seroconversion Rate^b	63% (58%-67%)	63% (57%-69%)
B2		N=545	N=265
	GMT (95% CI)	212 (192-235)	203 (175-234)
	Seroconversion Rate^b	72% (68%-75%)	68% (62%-74%)

^a For H1N1, H3N2 and B1 influenza strains TIV1c data are presented, whereas for B2 influenza strain TIV2c data are presented.

^b Seroconversion rate = percentage of subjects with either a prevaccination HI titre <1:10 and postvaccination HI titre \geq 1:40 or with a prevaccination HI titre \geq 1:10 and a minimum 4-fold increase in postvaccination HI antibody titre.

Bold- CHMP immunogenicity criteria met. The percentage of subjects with seroconversion or significant increase in HI antibody titre is >40%, the percentage of subjects achieving an HI titre \geq 1:40 is >70%.

Comparison of immunogenicity of TIVc in the paediatric and adult population

The immunogenicity data with TIVc are relevant to the use of Flucelvax Tetra because both vaccines are manufactured using the same process and have overlapping compositions. Immunogenicity of TIVc in children 9 to less than 18 years of age was evaluated as part of a randomised, double-blind, controlled study (V58P12) that was performed in the paediatric population 3 to less than 18 years of age. Immune responses following vaccination with TIVc in the paediatric population (9 to <18 years) were similar to those observed in the adult population in study V58P13 (see Table 5) in whom efficacy was demonstrated (results on vaccine efficacy are presented in Table 3). It should be noted that both V58P12 and V58P13 were performed in the 2007-2008 northern hemisphere influenza season.

Table 5: GMTs and seroconversion rates in adult and paediatric subjects vaccinated with TIVc (V58P12 and V58P13)

		V58P12 (Subjects 9 to <18 years)		V58P13 (Subjects 18 to < 50 years)	
		TIVc	TIVeF	TIVc	TIVeA
		N=142	N=144	N=228	N=695
A/H1N1	GMT (95% CI)	879 (728-1062)	1107 (918-1334)	566 (483-663)	499 (455-546)
	Seroconversion Rate ^a	77% (70%-84%)	77% (69-84)	78% (72%-83%)	75% (71%-78%)
A/H3N2	GMT (95% CI)	706 (607-821)	1857 (1598-2157)	332 (289-383)	357 (330-387)
	Seroconversion Rate ^a	56% (48%-65%)	77% (69-84)	59% (53%-66%)	68% (64%-71%)
B	GMT (95% CI)	58 (48-71)	105 (86-129)	72 (63-84)	120 (111-131)
	Seroconversion Rate ^a	56% (48%-65%)	71% (63-78)	51% (45%-58%)	68% (65%-73%)

HI data, egg-derived assay

TIVc = cell-based trivalent influenza vaccine; TIVeA = egg-based trivalent influenza vaccine (Arippal);

TIVeF = egg-based trivalent influenza vaccine (Fluvirin)

^a Seroconversion rate = percentage of subjects with either a prevaccination HI titre <1:10 and postvaccination HI titre ≥1:40 or with a prevaccination HI titre ≥1:10 and a minimum 4-fold increase in postvaccination HI antibody titre.

Immunogenicity of Flucelvax Tetra in children 4 to less than 9 years of age

Flucelvax Tetra is not indicated for use in children less than 9 years of age, see Section 4.2. The available immunogenicity data in the paediatric population 4 to less than 9 years of age were obtained in trial V130_03. Overall, the immunogenicity results were in line with those obtained in subjects older than 9 years of age and showed a similar immune response in subjects receiving Flucelvax Tetra as compared to those receiving a comparator TIVc.

The European Medicines Agency has deferred the obligation to submit the results of studies with Flucelvax Tetra in children 6 months to 4 years of age in the prevention of influenza.

5.2 Pharmacokinetic properties

Not applicable.

5.3 Preclinical safety data

Non-clinical data reveal no special hazard for humans based on conventional studies of repeated dose toxicity and toxicity to reproduction and development.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Sodium chloride
Potassium chloride
Magnesium chloride hexahydrate
Disodium phosphate dihydrate
Potassium dihydrogen phosphate
Water for injections

6.2 Incompatibilities

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

6.3 Shelf life

12 months

6.4 Special precautions for storage

Store in a refrigerator (2°C – 8°C).

Do not freeze.

Keep the pre filled syringe in the outer carton in order to protect from light.

6.5 Nature and contents of container

0.5 ml suspension in pre-filled syringes (type I glass), with a plunger stopper (bromobutyl rubber).

Pack size: 10 pre-filled syringes, without needle.

6.6 Special precautions for disposal and other handling

Shake before use. After shaking, the normal appearance of the vaccine is a clear to slightly opalescent suspension.

The vaccine should be visually inspected for particulate matter and discoloration prior to administration. In the event of any foreign particulate matter and/or variation of physical aspect is observed, do not administer the vaccine.

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7. MARKETING AUTHORISATION HOLDER

Seqirus Netherlands B.V.
Hullenbergweg 89
1101CL Amsterdam
Netherlands

8. MARKETING AUTHORISATION NUMBER(S)

EU/1/18/1326/001

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

10. DATE OF REVISION OF THE TEXT

Detailed information on this medicinal product is available on the website of the European Medicines Agency <http://www.ema.europa.eu>.

ANNEX II

- A. MANUFACTURER(S) OF THE BIOLOGICAL ACTIVE SUBSTANCE(S)
AND MANUFACTURER(S) RESPONSIBLE FOR BATCH RELEASE**
- B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE**
- C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING
AUTHORISATION**
- D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND
EFFECTIVE USE OF THE MEDICINAL PRODUCT**

A. MANUFACTURER(S) OF THE BIOLOGICAL ACTIVE SUBSTANCE(S) AND MANUFACTURER(S) RESPONSIBLE FOR BATCH RELEASE

Name and address of the manufacturer(s) of the biological active substance(s)

Seqirus Inc.
475 Green Oaks Parkway
Holly Springs
NC 27540
United States

Name and address of the manufacturer(s) responsible for batch release

Seqirus Vaccines Ltd
Gaskill Road
Speke
Liverpool
L24 9GR
United Kingdom

B. CONDITIONS OR RESTRICTIONS REGARDING SUPPLY AND USE

Medicinal product subject to medical prescription.

- **Official batch release**

In accordance with Article 114 of Directive 2001/83/EC, the official batch release will be undertaken by a state laboratory or a laboratory designated for that purpose.

C. OTHER CONDITIONS AND REQUIREMENTS OF THE MARKETING AUTHORISATION

- **Periodic safety update reports**

The requirements for submission of periodic safety update reports for this medicinal product are set out in the list of Union reference dates (EURD list) provided for under Article 107c(7) of Directive 2001/83/EC and any subsequent updates published on the European medicines web-portal. The marketing authorisation holder shall submit the first periodic safety update report for this product within 6 months following authorisation.

D. CONDITIONS OR RESTRICTIONS WITH REGARD TO THE SAFE AND EFFECTIVE USE OF THE MEDICINAL PRODUCT

- **Risk Management Plan (RMP)**

The MAH shall perform the required pharmacovigilance activities and interventions detailed in the agreed RMP presented in Module 1.8.2 of the marketing authorisation and any agreed subsequent updates of the RMP.

An updated RMP should be submitted:

- At the request of the European Medicines Agency;
- Whenever the risk management system is modified, especially as the result of new information being received that may lead to a significant change to the benefit/risk profile or as the result of an important (pharmacovigilance or risk minimisation) milestone being reached.

ANNEX III
LABELLING AND PACKAGE LEAFLET

A. LABELLING

PARTICULARS TO APPEAR ON THE OUTER PACKAGING

Carton box for syringe(s) without needle
- 10 pre-filled syringes (0.5 ml) without needle

1. NAME OF THE MEDICINAL PRODUCT

Flucelvax Tetra suspension for injection in pre-filled syringe
Influenza vaccine (surface antigen, inactivated, prepared in cell cultures)
xxxx/xxxx season

2. STATEMENT OF ACTIVE SUBSTANCE(S)

Influenza virus surface antigens (haemagglutinin and neuraminidase), inactivated, of the following strains*:

A/xxxxxx (H1N1) - like strain (<i>reassortant used</i>)	15 micrograms HA**
A/xxxxx (H3N2) - like strain (<i>reassortant used</i>)	15 micrograms HA**
B/xxxxx – like strain (<i>reassortant used</i>)	15 micrograms HA**
B/xxxxx – like strain (<i>reassortant used</i>)	15 micrograms HA**

per 0.5 ml dose

.....
* propagated in Madin Darby Canine Kidney (MDCK) cells
** haemagglutinin

3. LIST OF EXCIPIENTS

Sodium chloride, potassium chloride, magnesium chloride hexahydrate, disodium phosphate dihydrate, potassium dihydrogen phosphate and water for injections.

4. PHARMACEUTICAL FORM AND CONTENTS

Suspension for injection in pre-filled syringe
10 pre filled syringes (0.5 ml) without needle

5. METHOD AND ROUTE(S) OF ADMINISTRATION

Intramuscular use.

Read the package leaflet before use.

6. SPECIAL WARNING THAT THE MEDICINAL PRODUCT MUST BE STORED OUT OF THE SIGHT AND REACH OF CHILDREN

Keep out of the sight and reach of children.

7. OTHER SPECIAL WARNING(S), IF NECESSARY

8. EXPIRY DATE

EXP

9. SPECIAL STORAGE CONDITIONS

Store in a refrigerator.
Do not freeze.
Keep the pre filled syringe in the outer carton in order to protect from light.

10. SPECIAL PRECAUTIONS FOR DISPOSAL OF UNUSED MEDICINAL PRODUCTS OR WASTE MATERIALS DERIVED FROM SUCH MEDICINAL PRODUCTS, IF APPROPRIATE

11. NAME AND ADDRESS OF THE MARKETING AUTHORISATION HOLDER

Seqirus Netherlands B.V.
Hullenbergweg 89
1101CL Amsterdam
Netherlands

12. MARKETING AUTHORISATION NUMBER(S)

EU/1/18/1326/001

13. BATCH NUMBER<, DONATION AND PRODUCT CODES>

Lot:

14. GENERAL CLASSIFICATION FOR SUPPLY

15. INSTRUCTIONS ON USE

Shake before use.

16. INFORMATION IN BRAILLE

Justification for not including Braille accepted.

17. UNIQUE IDENTIFIER – 2D BARCODE

2D barcode carrying the unique identifier included.

18. UNIQUE IDENTIFIER - HUMAN READABLE DATA

PC:

SN:

NN:

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

Pre-filled syringe label

1. NAME OF THE MEDICINAL PRODUCT AND ROUTE(S) OF ADMINISTRATION

Flucelvax Tetra injection
Influenza vaccine
xxxx/xxxx season

2. METHOD OF ADMINISTRATION

i.m.

3. EXPIRY DATE

EXP

4. BATCH NUMBER<, DONATION AND PRODUCT CODES>

Lot:

5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT

0.5 ml

6. OTHER

B. PACKAGE LEAFLET

Package leaflet: Information for the user

Flucelvax Tetra - suspension for injection in pre-filled syringe Influenza vaccine (surface antigen, inactivated, prepared in cell cultures)

▼ This medicine is subject to additional monitoring. This will allow quick identification of new safety information. You can help by reporting any side effects you may get. See the end of section 4 for how to report side effects.

Read all of this leaflet carefully before you receive this medicine because it contains important information for you.

- Keep this leaflet. You may need to read it again.
- If you have any further questions, ask your doctor, pharmacist or nurse.
- If you get any side effects, talk to your doctor, pharmacist or nurse. This includes any possible side effects not listed in this leaflet. See section 4.

What is in this leaflet

1. What Flucelvax Tetra is and what it is used for
2. What you need to know before you receive Flucelvax Tetra
3. How Flucelvax Tetra is given
4. Possible side effects
5. How to store Flucelvax Tetra
6. Contents of the pack and other information

1. What Flucelvax Tetra is and what it is used for

Flucelvax Tetra is a vaccine against flu (influenza). Flucelvax Tetra is prepared in cell cultures, and, therefore, is egg-free.

When a person is given the vaccine, the immune system (the body's natural defence system) will produce its own protection against the influenza virus. None of the ingredients in the vaccine can cause flu.

Flucelvax Tetra is used to prevent flu in adults and children from 9 years of age.

The vaccine targets four strains of influenza virus following the recommendations by the World Health Organisation for the xxxx/xxxx season.

2. What you need to know before you receive Flucelvax Tetra

You should not receive Flucelvax Tetra:

If you are allergic to:

- the active ingredients or any of the other ingredients of this medicine (listed in section 6)
- beta-propiolactone, cetyltrimethylammonium bromide, or polysorbate 80, which are trace residues from the manufacturing process.

Warnings and precautions

Talk to your doctor, pharmacist or nurse before receiving Flucelvax Tetra.

BEFORE receiving the vaccine

- Your doctor or nurse will make sure that appropriate medical treatment and supervision is readily available in case of a rare anaphylactic reaction (a very severe allergic reaction with symptoms

such as difficulty in breathing, dizziness, a weak and rapid pulse and skin rash) following the administration. This reaction may occur with Flucelvax Tetra as with all vaccines that are injected.

- You should tell your doctor if you have an acute illness associated with fever. Your doctor may decide to delay your vaccination until your fever is gone.
- You should tell your doctor if your immune system is impaired, or if you are undergoing treatment which affects the immune system, e.g. with medicine against cancer (chemotherapy) or corticosteroid medicines (see Section “Other medicines and Flucelvax Tetra”).
- You should tell your doctor if you have a bleeding problem or bruise easily.
- Fainting can occur following, or even before, any needle injection, therefore tell the doctor or nurse if you fainted with a previous injection.

As with all vaccines, Flucelvax Tetra may not fully protect all persons who are vaccinated.

Other medicines and Flucelvax Tetra

Tell your doctor or nurse if you are using, have recently used or might use any other medicines, including medicines obtained without a prescription or if you have recently received any other vaccine.

Flucelvax Tetra may be given at the same time as other vaccines.

Pregnancy and breast-feeding

Pregnancy:

Tell your doctor if you are pregnant, think you may be pregnant or are planning to have a baby. Influenza vaccinations can be used at any stage of pregnancy.

Breast-feeding:

Use of Flucelvax Tetra during breast-feeding has not been studied. Flucelvax Tetra may be used during breast-feeding.

Driving and using machines

Flucelvax Tetra has no or negligible effect on your ability to drive and use machines.

Flucelvax Tetra contains sodium chloride and potassium chloride

This vaccine contains less than 1 mmol sodium (23 mg) per dose, i.e. essentially ‘sodium free’.

This vaccine contains potassium, less than 1 mmol (39 mg) per dose, i.e. essentially ‘potassium free’.

3. How Flucelvax Tetra is given

Flucelvax Tetra is given to you by your doctor or nurse as an injection into the muscle at the top of the upper arm (deltoid muscle).

Adults and children from 9 years of age:

One dose of 0.5 ml

4. Possible side effects

Like all medicines, this medicine can cause side effects, although not everybody gets them. The following side effects have been reported during clinical trials and during general use:

Very serious side effects

Tell your doctor immediately or go to the casualty department at your nearest hospital if you experience the following side effect – you may need urgent medical attention or hospitalisation:

- difficulty in breathing, dizziness, a weak and rapid pulse and skin rash which are symptoms of an anaphylactic reaction (a very severe allergic reaction)

Serious side effects

Tell your doctor immediately if you experience any of the following side effects – you may need medical attention:

- extensive swelling of injected limb

Mild side effects

Very common (may affect more than 1 in 10 people):

- Injection site pain, reddening, hardening or swelling at the site of the injection.
- Headache
- Muscle pain
- Tiredness

Hardening or swelling at the site of the injection, headache, muscle pain, and fatigue were common in the elderly.

Common (may affect up to 1 in 10 people):

- Nausea, vomiting, diarrhoea
- Loss of appetite
- Joint pain
- Bruising
- Shivering

Vomiting was uncommon in the elderly

Uncommon (may affect up to 1 in 100 people):

- Fever ($\geq 38^{\circ}\text{C}$)

Fever was common in adolescents and children.

Frequency not known (cannot be estimated from the available data):

- Numbness and tingling sensation
- Generalised skin reactions including itching, bumps on the skin or non-specific rash

Reporting of side effects

If you get any side effects, talk to your healthcare professional. This includes any possible side effects not listed in this leaflet. You can also report side effects directly via [the national reporting system listed in Appendix V](#).* By reporting side effects, you can help provide more information on the safety of this medicine.

5. How to store Flucelvax Tetra

Keep this vaccine out of the sight and reach of children.

Store in a refrigerator (2 °C to 8 °C). Do not freeze.

Keep the pre-filled syringe in the outer carton in order to protect from light.

Do not use this vaccine after the expiry date which is stated on the label and carton after EXP. The expiry date refers to the last day of that month.

Do not throw away any medicines via wastewater or household waste. Ask your pharmacist how to throw away medicines you no longer use. These measures will help protect the environment.

6. Contents of the pack and other information

What Flucelvax Tetra contains

The active substances are influenza virus surface antigens (haemagglutinin and neuraminidase), inactivated, of the following strains*:

A/xxxxxx (H1N1) - like strain (reassortant used)	15 micrograms HA**
A/xxxxx (H3N2) - like strain (reassortant used)	15 micrograms HA**
B/xxxxx – like strain (reassortant used)	15 micrograms HA**
B/xxxxx – like strain (reassortant used)	15 micrograms HA**

per 0.5 ml dose

-
- * propagated in Madin Darby Canine Kidney (MDCK) cells (this is the special cell culture in which the influenza virus is grown)
 - ** haemagglutinin

This vaccine complies with the World Health Organisation (WHO) recommendation (northern hemisphere) and EU recommendation for the {year/year} season.

The other ingredients are: sodium chloride, potassium chloride, magnesium chloride hexahydrate, disodium phosphate dihydrate, potassium dihydrogen phosphate and water for injections.

What Flucelvax Tetra looks like and contents of the pack

Flucelvax Tetra is a suspension for injection in a pre-filled syringe (ready to use syringe). Flucelvax Tetra is a clear to slightly opalescent suspension. A single syringe contains 0.5 ml of suspension for injection. Flucelvax Tetra is available in packs containing 10 pre filled syringes without needles.

Marketing Authorisation Holder

Seqirus Netherlands B.V.
Hullenbergweg 89
1101CL Amsterdam
Netherlands

Manufacturer

Seqirus Vaccines Limited
Gaskill Road, Speke
L24 9GR Liverpool
United Kingdom

This leaflet was last revised in {MM/YYYY}.

Other sources of information

Detailed information on this medicine is available on the European Medicines Agency web site: <http://www.ema.europa.eu>.

The following information is intended for healthcare professionals only:

Appropriate medical treatment and supervision should always be readily available in case of a rare anaphylactic event following the administration of the vaccine.

Shake before use. After shaking, the normal appearance of the vaccine is a clear to slightly opalescent suspension.

The vaccine should be visually inspected for particulate matter and discoloration prior to administration. In the event of any foreign particulate matter and/or variation of physical aspect being observed, do not administer the vaccine.