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

Penbraya powder and suspension for suspension for injection

Meningococcal groups A, C, W, Y conjugate and group B vaccine (recombinant, adsorbed)

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

After reconstitution of the powder with the suspension, one dose (0.5 mL) contains:

(Contained in the powder for Penbraya, MenACWY conjugate component)

Neisseria meningitidis group A polysaccharide[1]	5 micrograms
Neisseria meningitidis group C polysaccharide[1]	5 micrograms
Neisseria meningitidis group W polysaccharide[1]	5 micrograms
Neisseria meningitidis group Y polysaccharide[1]	5 micrograms

(Contained in the suspension for Penbraya, MenB component)

Neisseria meningitidis group B fHbp subfamily A[2,3,4]	60 micrograms
Neisseria meningitidis group B fHbp subfamily B[2,3,4]	60 micrograms

[1] Conjugated to tetanus toxoid (TT) carrier protein	44 micrograms
[2] Adsorbed on aluminium phosphate	0.25 milligrams aluminium

[3] fHbp (factor H binding protein)
[4] Produced in *Escherichia coli* cells by recombinant DNA technology

Excipients with known effect

Penbraya contains 0.018 mg of polysorbate 80 in each 0.5 mL dose, which is equivalent to 0.035 mg/mL of polysorbate 80.

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Powder and suspension for suspension for injection
The powder is white.
The liquid suspension is white.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Penbraya is indicated for active immunisation of individuals 10 years of age and older to prevent invasive disease caused by *Neisseria meningitidis* groups A, B, C, W, and Y.

The use of this vaccine should be in accordance with official recommendations.

4.2 Posology and method of administration

Posology

Primary vaccination
2 doses should be administered (0.5 mL each) 6 to 12 months apart for prevention of meningococcal disease caused by groups A, B, C, W, and Y.

Booster
A booster dose should be considered for individuals at continued risk of invasive meningococcal disease who completed primary vaccination with Penbraya or completed primary vaccination with both meningococcal group b vaccine (recombinant, adsorbed) and a meningococcal serogroups A, C, W, Y vaccine.

Long-term antibody persistence data following vaccination with Penbraya are available up to 4 years after vaccination (see section 5.1).

There are no data available to indicate the need for or timing of a booster dose of Penbraya (see section 5.1).

Interchangeability
There are no data available on the interchangeability of Penbraya with other meningococcal vaccines to complete the primary vaccination series.

Paediatric population
The safety and efficacy of Penbraya in children under 10 years of age have not yet been established.

Penbraya should not be used in infants aged 2 to 6 months because of safety concerns (see section 4.8).

No data are available for children >6 months through 9 years of age.

Method of administration

This vaccine is for intramuscular injection only. The preferred site for injection is the deltoid muscle of the upper arm.

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

4.3 Contraindications

Hypersensitivity to the active substances or to any of the excipients listed in section 6.1.

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.

Penbraya should under no circumstances be administered intravascularly, intradermally or subcutaneously.

Management of acute allergic reactions

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

Anxiety-related reactions

Anxiety-related reactions, including vasovagal reactions (syncope), hyperventilation or stress-related reactions may occur in association with vaccination as a psychogenic response to the needle injection. It is important that precautions are in place to avoid injury from fainting.

Concurrent illness

Vaccination should be postponed in individuals suffering from acute severe febrile illness or acute infection. The presence of a minor infection and/or low-grade fever should not delay vaccination.

Thrombocytopenia and coagulation disorders

As with other intramuscular injections, the vaccine should be given with caution in individuals receiving anticoagulant therapy or those with thrombocytopenia or any coagulation disorder (such as haemophilia) because bleeding or bruising may occur following an intramuscular administration in these individuals.

Immunocompromised individuals

The efficacy, safety and immunogenicity of the vaccine have not been assessed in immunocompromised individuals, including those receiving immunosuppressant therapy. The efficacy of Penbraya may be lower in immunosuppressed individuals.

Tetanus vaccination

Penbraya contains tetanus toxoid carrier protein, however, vaccination with Penbraya does not substitute for routine tetanus vaccination.

Limitations of clinical trials

There are no data on the use of Penbraya in individuals older than 25 years of age. Data in individuals older than 25 years of age are available for the individual components of Penbraya (MenACWY conjugate component and MenB component).

Limitations of vaccine effectiveness

Vaccination with Penbraya may not protect all vaccine recipients.

Excipients

This vaccine contains polysorbate 80. Polysorbate 80 may cause hypersensitivity reactions.

This vaccine contains less than 1 mmol sodium (23 mg) per dose, that is to say essentially ‘sodium-free’.

4.5 Interaction with other medicinal products and other forms of interaction

Concomitant administration of Penbraya with other vaccines has not been studied.

4.6 Fertility, pregnancy and lactation

Pregnancy

There are no data from the use of Penbraya in pregnant women.

Animal studies with the vaccine components of Penbraya (MenACWY conjugate component and MenB component) do not indicate reproductive or developmental toxicity (see section 5.3).

Penbraya should only be used during pregnancy when the possible advantages outweigh the potential risks.

Breast-feeding

It is unknown whether Penbraya is excreted in human milk. Penbraya should only be used during breast-feeding when the possible advantages outweigh the potential risks.

Fertility

No human data on the effect of Penbraya on fertility are available.

Animal studies with the vaccine components of Penbraya (MenACWY conjugate component and MenB component) do not indicate direct or indirect harmful effects with respect to female fertility (see section 5.3). Penbraya or its vaccine components has not been evaluated in animal studies for impairment of fertility in males.

4.7 Effects on ability to drive and use machines

Penbraya has no or negligible influence on the ability to drive and use machines. However, some of the effects mentioned under section 4.8 may temporarily affect the ability to drive and use machines.

4.8 Undesirable effects

Summary of the safety profile

The most commonly reported adverse reactions were pain at the injection site (≥ 94%), fatigue (≥ 64%), headache (≥ 58%), muscle pain (≥ 36%), and swelling (≥ 34%) and redness (≥ 33%) at the injection site.

Tabulated list of adverse reactions

The safety profile of Penbraya was evaluated in more than 2 500 participants ≥ 10 to ≤ 25 years of age across clinical studies who received at least 1 dose of Penbraya. Adverse reactions reported in clinical studies and post-marketing data of the component vaccines are listed per system organ class (SOC), in decreasing order of seriousness according to the following frequency categories:

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 available data).

Table 1. Adverse reactions

System Organ Class	Frequency	Adverse Reactions
Blood and lymphatic system disorders	Uncommon	Lymphadenopathy
Immune system disorders	Uncommon	Hypersensitivity[a, b]
	Not known	Anaphylaxis[a]
Metabolic and nutrition disorders	Uncommon	Decreased appetite
Psychiatric disorders	Rare	Insomnia[a]
Nervous system disorders	Very common	Headache
	Uncommon	Dizziness

System Organ Class	Frequency	Adverse Reactions
	Rare	Somnolence; hypoaesthesia[a]
Gastrointestinal disorders	Very common	Diarrhoea
	Common	Vomiting
	Uncommon	Nausea
Musculoskeletal and connective tissue disorders	Very common	Muscle pain; joint pain
General disorders and administration site conditions	Very common	Fatigue; chills; injection site pain; injection site swelling; injection site redness
	Common	Fever
	Uncommon	Injection site rash; injection site haematoma
	Rare	Injection site pruritis; injection site warmth
	Not known	Injection site anaesthesia[a]; extensive limb swelling at the injection site, frequently associated with erythema, sometimes involving the adjacent joint or swelling of the entire injected limb[a]

a. ADR identified from experience with the MenACWY conjugate component and/or MenB component.
b. Hypersensitivity is a cluster term which includes pruritis, urticaria, and rash.

Paediatric population

The paediatric safety profile, as evaluated in the study population of 1 791 children and adolescents 10 through 17 years of age, was generally comparable to that in adults.

Infants less than 1 year of age
In a study including 115 infants 2 months and 48 infants 6 months of age who received Penbraya or Trumenba co-administered with vaccines licensed for this age group, the following adverse reactions occurred at a frequency of very common (≥ 1/10): drowsiness, irritability (fussiness), loss of or decreased appetite, fever, and injection site pain, swelling and redness.

Fever (≥ 38°C) was reported in 74% of subjects, with 69% of subjects (33 out of 48) 6 months of age reporting fever and 76% of subjects (87 out of 115) 2 months of age. Occurrence of fever >38.9˚C-40.0˚C was very common (12.0-25.0%) in both age groups, despite the use of paracetamol. The rate and severity of fever did not decrease with the second vaccination in the youngest infants.

The study was terminated as two infants 2 months of age developed fever (39.3°C and 39°C, respectively) after the first vaccination that, despite the use of antipyretics, led to medical attention and investigations including lumbar puncture. Cerebrospinal fluid (CSF) analysis showed pleocytosis without positive microbiological test results in 1 infant. Both cases were treated as presumed infections. Symptoms resolved for both infants. Post-marketing data after administration of Trumenba revealed 3 additional cases in which infants 1 to 3 months of age experienced fever leading to medical attention and investigations including lumbar puncture 1 day after vaccination. CSF analysis showed no pleocytosis in 2 cases and in 1 case showed pleocytosis without a positive microbiological test result.

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

In the event of overdose, monitoring of vital functions and possible symptomatic treatment is recommended.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Vaccines, meningococcal vaccines, ATC code: J07AH11

Mechanism of action

Penbraya induces the production of bactericidal antibodies specific to the capsular polysaccharides of *Neisseria meningitidis* groups A, C, W, and Y and to the fHbp subfamily A and B variants of *Neisseria meningitidis* group B. Anti-meningococcal antibodies protect against invasive meningococcal disease via complement mediated bactericidal activity.

Clinical efficacy

The efficacy is inferred by measuring immunogenicity using a serogroup-specific serum bactericidal assay with exogenous human complement (hSBA). An hSBA titre of ≥ 1:4 is the accepted correlate of protection against meningococcal disease. For groups A, C, W, and Y, 1 strain was utilised per group. The 4 group B test strains utilised in the immunogenicity evaluation express fHbp variants representing the 2 fHbp subfamilies (A and B) and are representative of prevalent strains causing invasive group B disease.

Immunogenicity

The immunogenicity of Penbraya described in this section includes data from 3 clinical studies: two studies (1001 and 1057) evaluated the immunogenicity and safety of two doses of Penbraya administered at 0 and 6 months or MenB at 0 and 6 months and MenACWY-CRM at 0 months in participants 10 through 25 years of age in the US and Europe. All participants were MenB vaccine-naïve. Both ACWY-naïve and ACWY-experienced participants (received 1 dose of MenACWY conjugate vaccine and/or monovalent MenC at least 4 years prior to enrolment) were part of the studies. In addition study 1004 evaluated an extended 2-dose schedule of Penbraya with an interval of 12 months in participants 10 through 14 years of age. Participants were naïve to any meningococcal vaccine.

Primary vaccination immunogenicity
In study 1001 (phase 3, randomised, active-controlled, observer-blinded, multicentre study) immunogenicity of Penbraya at 0 and 6 months or MenB at 0 and 6 months and MenACWY-CRM at 0 months was evaluated in a total of 2 431 randomised participants. Percentages of participants achieving seroresponse for groups A, B, C, W, and Y and composite response for group B following 2 doses of Penbraya are presented in Table 2. Percentages of seroprotected participants for groups A, B, C, W, and Y following 2 doses of Penbraya are shown in Table 3.

Penbraya seroresponse rates after 2 doses were demonstrated to be non-inferior (non-inferiority margin of 10%) to Meningococcal Groups A, C, W-135 and Y conjugated to *Corynebacterium*

diphtheriae CRM_{197} protein conjugate vaccine (MenACWY-CRM) after 1 dose in both ACWY-naïve and ACWY-experienced population. Similarly, Penbraya seroresponse and composite response rates were demonstrated to be non-inferior (non-inferiority margin of 10%) to MenB after 2 doses.

Table 2. Percentage of participants achieving a seroresponse and composite response 1 month after receiving 2 doses of Penbraya (0, 6 months) versus 1 month after single dose of MenACWY-CRM for groups A, C, W, and Y and 1 month after 2 doses of MenB (0, 6 months) for group B (Study 1001)[a]

	ACWY-naïve				ACWY-experienced			
	Penbraya		MenB + MenACWY-CRM		Penbraya		MenB + MenACWY-CRM	
	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Group	**Seroresponse**							
A	447	97.8 (95.9, 98.9)	254	95.3 (91.9, 97.5)	385	93.8 (90.9, 96.0)	227	96.9 (93.7, 98.8)
C	451	93.3 (90.6, 95.5)	252	52.4 (46.0, 58.7)	386	93.8 (90.9, 96.0)	226	94.7 (90.9, 97.2)
W	439	97.3 (95.3, 98.6)	244	73.0 (66.9, 78.4)	376	97.1 (94.8, 98.5)	222	96.4 (93.0, 98.4)
Y	446	94.4 (91.8, 96.3)	248	70.6 (64.5, 76.2)	387	93.0 (90.0, 95.4)	223	93.7 (89.7, 96.5)
ACWY-naïve and ACWY-experienced combined								
	Penbraya				**MenB + MenACWY-CRM**			
	N	**% (95% CI)**			**N**	**% (95% CI)**		
B variant	**Seroresponse**							
A22	778	83.0 (80.2, 85.6)			396	79.0 (74.7, 82.9)		
A56	807	95.9 (94.3, 97.2)			400	94.5 (91.8, 96.5)		
B24	833	68.1 (64.8, 71.2)			418	57.2 (52.3, 62.0)		
B44	845	86.5 (84.0, 88.7)			419	79.2 (75.0, 83.0)		
Composite[b]								
Pre-dose 1	812	1.2 (0.6, 2.3)			403	2.0 (0.9, 3.9)		
Post-dose 2	755	78.3 (75.2, 81.2)			383	68.7 (63.8, 73.3)		

Abbreviations: CI = confidence interval; LOD = limit of detection; LLOQ = lower limit of quantitation; MenACWY-CRM = meningococcal (groups A, C, W, and Y) oligosaccharide diphtheria CRM_{197} conjugate vaccine; MenB = meningococcal group B factor H binding protein.

Note: The LLOQ is an hSBA titre = 1:16 for A22 and 1:8 for A56, B24, and B44 and groups A, C, W, and Y.

Note: Seroresponse is defined as the 4-fold increase as follows: (1) For participants with a baseline hSBA titre < 1:4 (LOD), a 4-fold response was defined as an hSBA titre ≥ 1:16. (2) For participants with a baseline hSBA titre ≥ LOD and < LLOQ, a response is defined as an hSBA titre ≥ 4 times the LLOQ. (3) For participants with a baseline hSBA titre ≥ LLOQ, a response is defined as an hSBA titre ≥ 4 times the baseline titre.

a. Evaluable immunogenicity populations.

b. Composite response = hSBA ≥ LLOQ for all 4 primary meningococcal B strains.

Table 3. Percentage of participants achieving seroprotection after receiving 2 doses of Penbraya (0, 6 months) versus 1 month after single dose of MenACWY-CRM for groups A, C, W, and Y and 1 month after 2 doses of MenB (0, 6 months) for group B (Study 1001)[a]

	ACWY-naïve	ACWY-experienced

	Penbraya		MenB + MenACWY-CRM		Penbraya		MenB + MenACWY-CRM	
	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Group	**Seroprotection**							
A	455	99.8 (98.8; 100.0)	258	98.4 (96.1; 99.6)	391	100.0 (99.1; 100.0)	227	99.1 (96.9; 99.9)
C	455	99.1 (97.8; 99.8)	258	74.4 (68.6; 79.6)	390	99.0 (97.4; 99.7)	227	97.4 (94.3; 99.0)
W	455	99.8 (98.8; 100.0)	258	96.9 (94.0; 98.7)	390	100.0 (99.1; 100.0)	227	99.6 (97.6; 100.0)
Y	455	99.6 (98.4; 99.9)	258	99.2 (97.2; 99.9)	391	100.0 (99.1; 100.0)	227	100.0 (98.4; 100.0)

ACWY-naïve and ACWY-experienced combined

	Penbraya		MenB + MenACWY-CRM	
	N	% (95% CI)	N	% (95% CI)
B variant	**Seroprotection**			
A22	794	92.2 (90.1; 94.0)	405	88.1 (84.6; 91.1)
A56	825	98.7 (97.6; 99.3)	409	98.0 (96.2; 99.2)
B24	836	83.4 (80.7; 85.8)	419	74.0 (69.5; 78.1)
B44	847	94.3 (92.6; 95.8)	419	87.4 (83.8; 90.4)

Abbreviations: CI = confidence interval; MenACWY-CRM = meningococcal (groups A, C, W, and Y) oligosaccharide diphtheria CRM_{197} conjugate vaccine; MenB = meningococcal group B factor H binding protein.
Note: Seroprotection is defined as hSBA titre ≥ 1:8 for A56, B24, and B44 and groups A, C, W, and Y and ≥1:16 for A22
a. Evaluable immunogenicity populations.

In Study 1004 (phase 2 descriptive study), following 2 doses of Penbraya administered at 0 and 12 months, 98.2% to 99.1% and 92.9% to 100% of participants (n = 155 randomised) achieved seroresponse for groups A, C, W, and Y and group B, respectively. The group B composite response was achieved by 96.4% of participants following 2 doses of Penbraya.

Immunopersistence and booster immunogenicity
Immunopersistence up to four years following 2 doses of Penbraya and immunogenicity of a booster dose of Penbraya 4 years after primary series completion was evaluated in stage 2 of Study 1057 (open-label) in a total number of 353 participants. Seroprotection observed in Study 1057 is presented in Table 4.

Table 4. Percent of participants achieving seroprotection after receiving 2 primary doses of Penbraya (0, 6 months) versus after a single dose of MenACWY-CRM for groups A, C, W, and Y and after 2 doses of MenB (0, 6 months) for group B and after a booster dose of Penbraya or MenACWY-CRM and MenB 4 years after primary series completion (Study 1057)[a]

		ACWY-naïve				ACWY-experienced			
		Penbraya		MenB + MenACWY-CRM		Penbraya		MenB + MenACWY-CRM	
Group	**Timepoint**	**N**	**Seroprotection (95% CI)**	**N**	**Seroprotection (95% CI)**	**N[b]**	**Seroprotection (95% CI)**	**N[b]**	**Seroprotection (95% CI)**
A	1 month post-primary	60	100.0% (94.0, 100.0)	37	94.6% (81.8, 99.3)	33	100.0% (89.4, 100.0)	17	100.0% (80.5, 100.0)
	48 month post-primary	60	78.3% (65.8, 87.9)	36	61.1% (43.5, 76.9)	32	100.0% (89.1, 100.0)	17	100.0% (80.5, 100.0)
	1 month post-booster	60	100.0% (94.0, 100.0)	37	100.0% (90.5, 100.0)	33	100.0% (89.4, 100.0)	17	100.0% (80.5, 100.0)

C	1 month post-primary	60	100.0% (94.0, 100.0)	36	91.7% (77.5, 98.2)	70	100.0% (94.9, 100.0)	51	100.0% (93.0, 100.0)
	48 month post-primary	60	60.0% (46.5, 72.4)	37	37.8% (22.5, 55.2)	68	98.5% (92.1, 100.0)	51	88.2% (76.1, 95.6)
	1 month post-booster	60	100.0% (94.0, 100.0)	37	100.0% (90.5, 100.0)	70	100.0% (94.9, 100.0)	51	100.0% 93.0, 100.0)
W	1 month post-primary	60	100.0% (94.0, 100.0)	37	100.0% (90.5, 100.0)	33	100.0% (89.4, 100.0)	17	100.0% (80.5, 100.0)
	48 month post-primary	59	89.8% (79.2, 96.2)	37	70.3% (53.0, 84.1)	32	100.0% (89.1, 100.0)	17	88.2% (63.6, 98.5)
	1 month post-booster	60	100.0% (94.0, 100.0)	37	100.0% (90.5, 100.0)	33	100.0% (89.4, 100.0)	17	100.0% (80.5, 100.0)
Y	1 month post-primary	60	100.0% (94.0, 100.0)	35	100.0% (90.0, 100.0)	33	100.0% (89.4, 100.0)	17	100.0% (80.5, 100.0)
	48 month post-primary	60	100.0% (94.0, 100.0)	37	94.6% (81.8, 99.3)	32	100.0% (89.1, 100.0)	16	100.0% (79.4, 100.0)
	1 month post-booster	60	100.0% (94.0, 100.0)	37	100.0% (90.5, 100.0)	33	100.0% (89.4, 100.0)	17	100.0% (80.5, 100.0)

ACWY-naïve and ACWY-experienced combined for group B endpoints

		Penbraya		MenB + MenACWY-CRM	
B variant	**Timepoint**	**N**	**Seroprotection (95% CI)**	**N**	**Seroprotection (95% CI)**
A22	1 month post-primary	129	94.6% (89.1, 97.8)	88	93.2% (85.7, 97.5)
	48 month post-primary	121	28.1% (20.3, 37.0)	83	31.3% (21.6, 42.4)
	1 month post-booster	122	95.1% (89.6, 98.2)	81	93.8% (86.2, 98.0)
A56	1 month post-primary	128	98.4% (94.5, 99.8)	87	96.6% (90.3, 99.3)
	48 month post-primary	127	36.2% (27.9, 45.2)	86	29.1% (19.8, 39.9)
	1 month post-booster	124	100.0% (97.1, 100.0)	86	98.8% (93.7, 100.0)
B24	1 month post-primary	126	86.5% (79.3, 91.9)	87	78.2% (68.0, 86.3)
	48 month post-primary	126	34.9% (26.6, 43.9)	86	24.4% (15.8, 34.9)
	1 month post-booster	123	95.1% (89.7, 98.2)	84	95.2% (88.3, 98.7)
B44	1 month post-primary	130	98.5% (94.6, 99.8)	86	95.3% (88.5, 98.7)
	48 month post-primary	129	17.8% (11.7, 25.5)	87	16.1% (9.1, 25.5)
	1 month post-booster	128	99.2% (95.7, 100.0)	86	98.8% (93.7, 100.0)

Abbreviations: CI = confidence interval; MenACWY-CRM = meningococcal (groups A, C, W, and Y) oligosaccharide diphtheria CRM_{197} conjugate vaccine; MenB = meningococcal group B factor H binding protein.
Note: Seroprotection is defined as hSBA titre ≥ 1:16 for A22 and ≥ 1:8 for A56, B24, and B44 and groups A, C, W, and Y.
a. Booster evaluable immunogenicity population.
b. Sample sizes (N) in the ACWY-experienced groups for the hSBA assessments for groups A, W, and Y are lower than for group C as participants who previously received a monovalent C vaccine only contributed to hSBAs for group C.

Paediatric population

The European Medicines Agency has deferred the obligation to submit the results of studies with Penbraya in 1 or more subsets of the paediatric population for prevention of invasive disease caused by *Neisseria meningitidis* group A, B, C, W, and Y (see section 4.2 for information on paediatric use).

5.2 Pharmacokinetic properties

Not applicable.

5.3 Preclinical safety data

Non-clinical studies have not been conducted with Penbraya; however, non-clinical studies were conducted with the vaccine components of Penbraya (MenACWY conjugate component and MenB component). Non-clinical data revealed no special hazard for humans based on conventional studies of acute toxicity, repeated dose toxicity, local tolerance, and reproductive and developmental toxicity.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Powder

Sucrose
Trometamol
Sodium hydroxide (for pH adjustment)
Hydrochloric acid (for pH adjustment)

Suspension

Histidine
Polysorbate 80
Sodium chloride
Water for injections
Sodium hydroxide (for pH adjustment)
Hydrochloric acid (for pH adjustment)

For adsorbent, see section 2.

6.2 Incompatibilities

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

6.3 Shelf life

2 years.

Reconstituted product

After reconstitution, Penbraya should be administered immediately or within 4 hours if stored between 2 °C and 30 °C to ensure chemical and physical in-use stability. Do not freeze.

From a microbiological point of view, unless the method of opening and reconstituting precludes the risks of microbial contamination, the product should be used immediately. If not used immediately, in-use storage times and conditions are the responsibility of the user.

6.4 Special precautions for storage

Store in a refrigerator (2 °C – 8 °C). The carton should be stored horizontally to minimise pre-filled syringe resuspension time.

Do not freeze. Discard if the carton has been frozen.

For storage conditions of the vaccine after reconstitution, see section 6.3.

6.5 Nature and contents of container

Powder for 1 dose in a vial (type I glass) with a stopper (synthetic bromobutyl rubber).

Suspension for 1 dose in a pre-filled syringe (type I glass) with a stopper (synthetic chlorobutyl rubber) and a tip cap (synthetic isoprene/bromobutyl blend rubber).

Pack size

1-dose pack
Pack containing 1 vial of powder, 1 pre-filled syringe of suspension, 1 vial adapter, with 1 needle or without needles.

5-dose pack
Pack containing 5 vials of powder, 5 pre-filled syringes of suspension, 5 vial adapters, with 5 needles or without needles.

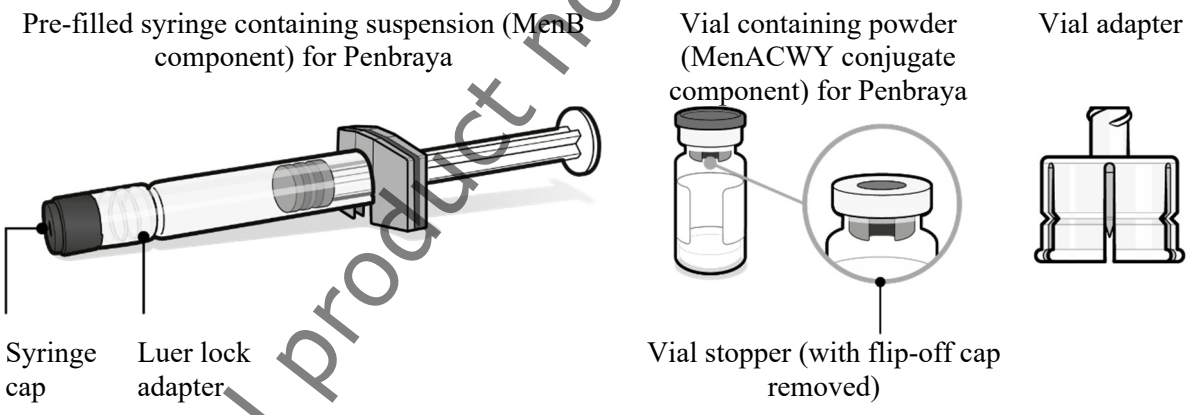
10-dose pack
Pack containing 10 vials of powder, 10 pre-filled syringes of suspension, 10 vial adapters, with 10 needles or without needles.

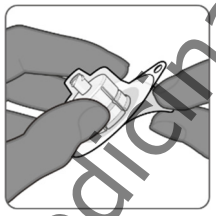
Not all pack sizes may be marketed.

6.6 Special precautions for disposal and other handling

The lyophilised powder (MenACWY conjugate component) must be reconstituted only with the provided pre-filled syringe containing suspension (MenB component) using the vial adapter to form Penbraya.

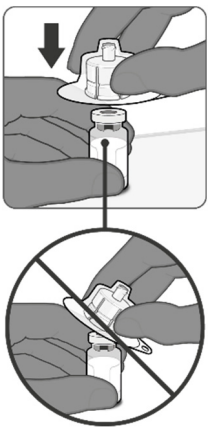
Preparation of Penbraya for administration



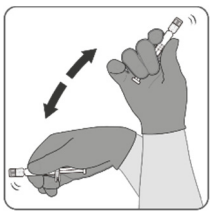


Step 1. Prepare vial adapter

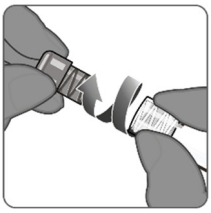
- Remove plastic flip-off cap from vial and wipe the rubber stopper.
- Open the packaging containing the vial adapter by peeling the top cover off.
- Do not remove the vial adapter from its package.



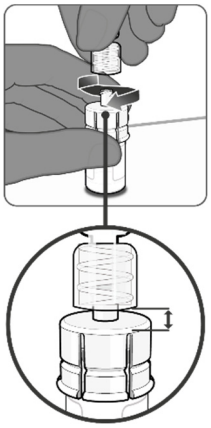
Step 2. Attach the vial adapter to the vial containing powder for Penbraya
- Hold the base of the vial on a flat surface.
- Keep the vial adapter in the packaging and orient it vertically over the centre of the vial so that the adapter spike aligns with the centre of the vial's rubber stopper.
- Connect the vial adapter to the vial with a straight downward push. The vial adapter will lock into place.
- Do not push vial adapter in at an angle as this may result in leaking during use.
- Remove the vial adapter packaging.



Step 3. Resuspend suspension contained in the pre-filled syringe
- During storage, a white deposit and clear supernatant may be observed in the pre-filled syringe containing the suspension.
- Shake the syringe vigorously to obtain a visually white homogenous suspension. Do not use the syringe if the contents cannot be resuspended.

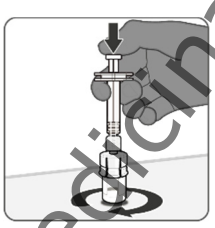


Step 4. Remove the pre-filled syringe cap
- For all syringe assembly steps, hold the syringe only by the Luer lock adapter located at the tip of the syringe. This will prevent the Luer lock adapter from detaching during use.
- Remove the syringe cap by slowly turning the cap counterclockwise while holding the Luer lock adapter.

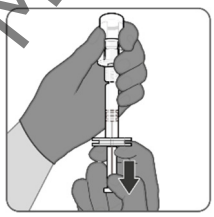


Step 5. Connect the pre-filled syringe to the vial adapter
- Hold the syringe's Luer lock adapter and connect it to the vial adapter by turning clockwise.
- Stop turning when you feel resistance, overtightening the syringe may result in leaking during use.

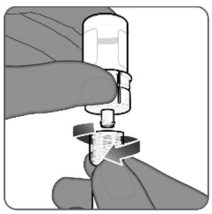
- Once the syringe is securely attached to the vial adapter, there will be a small space between the top of the vial adapter and the Luer lock adapter of the syringe.



Step 6. Inject suspension and gently swirl
- Inject the entire contents of the syringe containing the MenB suspension into the vial.
- Do not remove the empty syringe.
- While holding the plunger rod down, gently swirl the vial in a circular motion until the powder is completely dissolved (less than 1 minute).



Step 7. Withdraw the contents
- Invert the vial completely with the vial adapter and syringe still attached.
- Slowly withdraw the entire contents into the syringe.
- Drawing up all obtainable content ensures a complete 0.5 mL dose for administration.
- Do not pull the plunger rod out.



Step 8. Disconnect syringe
- Hold the Luer lock adapter of the syringe and disconnect the syringe from the vial adapter by turning counterclockwise.

Step 9. Attach needle
- Attach a sterile needle suitable for intramuscular injection to the pre-filled syringe by turning clockwise.
- Do not overtighten the needle as this may result in leaking during use.

Step 10. Resuspend and visual inspection
- Immediately prior to dose administration, shake the syringe to ensure a homogenous suspension.
- The prepared vaccine is a white homogenous suspension.
- Visually inspect the vaccine for large particulate matter and discoloration prior to administration. Do not use if large particulate matter or discoloration is found.

Disposal

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

7. MARKETING AUTHORISATION HOLDER

Pfizer Europe MA EEIG
Boulevard de la Plaine 17
1050 Bruxelles
Belgium

8. MARKETING AUTHORISATION NUMBER(S)

EU/1/24/1871/001
EU/1/24/1871/002
EU/1/24/1871/003
EU/1/24/1871/004
EU/1/24/1871/005
EU/1/24/1871/006

9. DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation:

10. DATE OF REVISION OF THE TEXT

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

ANNEX II

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

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

Pfizer Ireland Pharmaceuticals
Grange Castle Business Park
Clondalkin
Dublin 22
Ireland

Pfizer Health AB
Mariefredsvägen 37
S-645 41 Strängnäs
Sweden

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

Pfizer Manufacturing Belgium NV
Rijksweg 12
2870 Puurs-Sint-Amands
Belgium

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 (PSURs)**

The requirements for submission of PSURs 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 (MAH) shall submit the first PSUR 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 marketing authorisation holder (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

OUTER CARTON – WITH NEEDLES

1. NAME OF THE MEDICINAL PRODUCT

Penbraya powder and suspension for suspension for injection
Meningococcal groups A, C, W, Y conjugate and group B vaccine (recombinant, adsorbed)

2. STATEMENT OF ACTIVE SUBSTANCE(S)

1 dose (0.5 mL) contains 5 micrograms of *Neisseria meningitidis* group A, C, W, and Y polysaccharides, conjugated to tetanus toxoid carrier protein (44 micrograms), and 60 micrograms of *Neisseria meningitidis* group B fHbp subfamily A and B, adsorbed on aluminium phosphate (containing 0.25 mg of aluminium).

3. LIST OF EXCIPIENTS

Powder: sucrose, trometamol. Suspension: histidine, polysorbate 80, sodium chloride, water for injections. See leaflet for further information.

4. PHARMACEUTICAL FORM AND CONTENTS

Powder and suspension for suspension for injection

1 vial with powder
1 pre-filled syringe of suspension
1 vial adapter
1 needle
1 dose (0.5 mL)

5 vials with powder
5 pre-filled syringes of suspension
5 vial adapters
5 needles
5 x 1 dose (0.5 mL)

10 vials with powder
10 pre-filled syringes of suspension
10 vial adapters
10 needles
10 x 1 dose (0.5 mL)

5. METHOD AND ROUTE(S) OF ADMINISTRATION

Intramuscular use, after reconstitution.

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.
Horizontal storage recommended.
After reconstitution, use immediately or within 4 hours if stored between 2 °C and 30 °C.

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

Pfizer Europe MA EEIG
Boulevard de la Plaine 17
1050 Bruxelles
Belgium

12. MARKETING AUTHORISATION NUMBER(S)

EU/1/24/1871/001
EU/1/24/1871/002
EU/1/24/1871/003

13. BATCH NUMBER

Lot

14. GENERAL CLASSIFICATION FOR SUPPLY

15. INSTRUCTIONS ON 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

PARTICULARS TO APPEAR ON THE OUTER PACKAGING

OUTER CARTON – WITHOUT NEEDLES

1. NAME OF THE MEDICINAL PRODUCT

Penbraya powder and suspension for suspension for injection
Meningococcal groups A, C, W, Y conjugate and group B vaccine (recombinant, adsorbed)

2. STATEMENT OF ACTIVE SUBSTANCE(S)

1 dose (0.5 mL) contains 5 micrograms of *Neisseria meningitidis* group A, C, W, and Y polysaccharides, conjugated to tetanus toxoid carrier protein (44 micrograms), and 60 micrograms of *Neisseria meningitidis* group B fHbp subfamily A and B, adsorbed on aluminium phosphate (containing 0.25 mg of aluminium).

3. LIST OF EXCIPIENTS

Powder: sucrose, trometamol. Suspension: histidine, polysorbate 80, sodium chloride, water for injections. See leaflet for further information.

4. PHARMACEUTICAL FORM AND CONTENTS

Powder and suspension for suspension for injection

1 vial with powder
1 pre-filled syringe of suspension
1 vial adapter
1 dose (0.5 mL)

5 vials with powder
5 pre-filled syringes of suspension
5 vial adapters
5 x 1 dose (0.5 mL)

10 vials with powder
10 pre-filled syringes of suspension
10 vial adapters
10 x 1 dose (0.5 mL)

5. METHOD AND ROUTE(S) OF ADMINISTRATION

Intramuscular use, after reconstitution.

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.
Horizontal storage recommended.
After reconstitution, use immediately or within 4 hours if stored between 2 °C and 30 °C.

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

Pfizer Europe MA EEIG
Boulevard de la Plaine 17
1050 Bruxelles
Belgium

12. MARKETING AUTHORISATION NUMBER(S)

EU/1/24/1871/004
EU/1/24/1871/005
EU/1/24/1871/006

13. BATCH NUMBER

Lot

14. GENERAL CLASSIFICATION FOR SUPPLY

15. INSTRUCTIONS ON 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

VIAL LABEL MENACWY CONJUGATE COMPONENT

1. NAME OF THE MEDICINAL PRODUCT

Powder for Penbraya
MenACWY conjugate
IM

2. METHOD OF ADMINISTRATION

3. EXPIRY DATE

EXP

4. BATCH NUMBER

Lot

5. CONTENT BY WEIGHT, BY VOLUME OR BY UNIT

1 dose

6. OTHER

MINIMUM PARTICULARS TO APPEAR ON SMALL IMMEDIATE PACKAGING UNITS

PRE-FILLED SYRINGE MENB COMPONENT

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

Suspension for Penbraya
MenB
IM

2. METHOD OF ADMINISTRATION

3. EXPIRY DATE

EXP

4. BATCH NUMBER

Lot

5. CONTENTS BY WEIGHT, BY VOLUME OR BY UNIT

0.5 mL

6. OTHER

B. PACKAGE LEAFLET

Package leaflet: Information for the user

Penbraya powder and suspension for suspension for injection
Meningococcal groups A, C, W, Y conjugate and group B vaccine (recombinant, adsorbed)

▼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 vaccine 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 Penbraya is and what it is used for

Penbraya is a vaccine which helps protect people aged 10 years and older against infections caused by bacteria (germs) called *Neisseria meningitidis* types A, B, C, W, and Y. These bacteria can cause serious and sometimes life-threatening infections such as:
- Meningitis – an infection of the tissues that lines the brain and spinal cord.
- Sepsis – a blood infection.

Penbraya contains small amounts of fragments from the *Neisseria meningitidis* bacteria types A, B, C, W and Y. When a person is given the vaccine, the immune system (the body's natural defences) recognises the fragments as 'foreign' and makes antibodies (proteins) against them. If the person later comes into contact with the bacteria, these antibodies, together with other components of the immune system, will be able to fight off the bacteria more effectively and so help protect the person against the disease.

2. What you need to know before you receive Penbraya

Penbraya should not be given
- if you or your child are allergic to the active substances or any of the other ingredients of this vaccine (listed in section 6).

If you are not sure, talk to your doctor or nurse before you or your child receive Penbraya.

Warnings and precautions

Talk to your doctor, pharmacist or nurse before you are given this vaccine if you or your child:
- have ever had an allergic reaction or breathing problems after any other vaccine injection or after you or your child were given Penbraya in the past.

- have ever fainted following any needle injection.
- have a severe illness or high fever. However, a mild fever or upper respiratory infection (for example having a cold) itself is not a reason to delay vaccination.
- have any bleeding problems or bruise easily.
- have a weakened immune system or are taking medicines that can affect your immune system, which may prevent you or your child from getting the full benefit from Penbraya.

As with any vaccine, Penbraya may not fully protect all those who receive it.

Children and adolescents

Penbraya is not for use in children younger than 10 years of age.

Other medicines and Penbraya

Tell your doctor or pharmacist if you or your child are scheduled to receive any other vaccines or have recently received any other vaccines.

Pregnancy and breast-feeding

If you are pregnant or breast-feeding, think you may be pregnant or are planning to have a baby, ask your doctor for advice before receiving this vaccine.

Driving and using machines

Penbraya has no or minimal effects on your ability to drive or use machines. Some of the effects of vaccination mentioned in section 4 (Possible side effects) may temporarily affect your ability to drive or use machines. Do not drive or use machines if you experience any of these side effects.

Penbraya contains sodium

This vaccine contains less than 1 mmol sodium (23 mg) per dose, that is to say essentially 'sodium-free'.

Penbraya contains polysorbate 80

This vaccine contains 0.018 mg of polysorbate 80 per dose. Polysorbates may cause allergic reactions. Tell your doctor if you or your child has any known allergies.

3. How Penbraya is given

Penbraya will be given to you or your child by a doctor, pharmacist or nurse.

Penbraya is given as a single injection of 0.5 mL usually into the upper arm muscle. You will be given two doses. The second dose is given 6 to 12 months after the first. It is important to get both doses in order to provide the best protection against all types of meningococcal disease.

Individuals who are at continued risk of getting meningococcal disease after 2 doses may need a booster dose of the vaccine.

It is important to follow the instructions from the doctor, pharmacist or nurse so that you or your child completes the course of injections.

4. Possible side effects

Like all vaccines, Penbraya can cause side effects, although not everybody gets them.

When Penbraya is given to your or your child, the following side effects may occur:

Very common (may affect more than 1 in 10 people)
- pain at the injection site
- fatigue (tiredness)
- headache
- muscle pain
- swelling at the injection site
- redness at the injection site
- joint pain
- chills
- diarrhoea

Common (may affect up to 1 in 10 people)
- fever
- vomiting

Uncommon (may affect up to 1 in 100 people)
- enlarged lymph nodes
- loss of appetite
- feeling dizzy
- feeling sick (nausea)
- rash at the injection site
- bruising (haematoma) at the injection site
- allergic reaction (including itching, hives, and rash)

Rare (may affect up to 1 in 1 000 people)
- difficulty sleeping
- feeling drowsy
- decreased sensation of the skin
- a feeling of warmth at the injection site
- itching at the injection site

Not known (frequency cannot be estimated from the available data)
- injection site swelling and redness; this may affect a large area of the vaccinated limb
- sudden, severe allergic reaction (anaphylaxis)
- numbness at the injection site

Reporting of side effects

If you get any side effects, talk to your doctor, pharmacist or nurse. 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 Penbraya

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

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

Store carton in a refrigerator (2 °C – 8 °C).

The carton should be stored horizontally to minimise pre-filled syringe resuspension time.

Do not freeze. Discard if the carton has been frozen.

Penbraya should be administered immediately (within 4 hours) after reconstitution. Store the reconstituted vaccine between 2 °C and 30 °C. Do not freeze.

Do not throw away any vaccines 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 Penbraya contains

The active substances are:
After reconstitution of the powder with the suspension, one dose (0.5 mL) contains:

(Contained in the powder for Penbraya, MenACWY conjugate component)	
Neisseria meningitidis group A polysaccharide[1]	5 micrograms
Neisseria meningitidis group C polysaccharide[1]	5 micrograms
Neisseria meningitidis group W polysaccharide[1]	5 micrograms
Neisseria meningitidis group Y polysaccharide[1]	5 micrograms
(Contained in the suspension for Penbraya, MenB component)	
Neisseria meningitidis group B fHbp subfamily A[2,3,4]	60 micrograms
Neisseria meningitidis group B fHbp subfamily B[2,3,4]	60 micrograms
[1] Conjugated to tetanus toxoid (TT) carrier protein	44 micrograms
[2] Adsorbed on aluminium phosphate	0.25 milligrams aluminium

[3] fHbp (factor H binding protein)
[4] Produced in *Escherichia coli* cells by recombinant DNA technology

Aluminium phosphate is included in this vaccine as an adsorbent. Adsorbents are substances included in certain vaccines to accelerate, improve and/or prolong the protective effects of the vaccine.

The other ingredients are:
Powder
- sucrose
- trometamol
- sodium hydroxide (for pH adjustment)
- hydrochloric acid (for pH adjustment)

Suspension
- histidine
- polysorbate 80 (see section 2 “Penbraya contains polysorbate 80”)
- sodium chloride (see section 2 “Penbraya contains sodium”)
- water for injections
- sodium hydroxide (for pH adjustment)
- hydrochloric acid (for pH adjustment)

What Penbraya looks like and contents of the pack

Penbraya is provided as
- a white powder in a glass vial
- a white suspension in a pre-filled syringe to disperse the powder

Penbraya is available in:

1-dose pack
Pack containing 1 vial of powder, 1 pre-filled syringe of suspension, 1 vial adapter, with 1 needle or without needles.

5-dose pack
Pack containing 5 vials of powder, 5 pre-filled syringes of suspension, 5 vial adapters, with 5 needles or without needles.

10-dose pack
Pack containing 10 vials of powder, 10 pre-filled syringes of suspension, 10 vial adapters, with 10 needles or without needles.

Not all pack sizes may be marketed.

Marketing Authorisation Holder and Manufacturer

Marketing Authorisation Holder:
Pfizer Europe MA EEIG
Boulevard de la Plaine 17
1050 Bruxelles
Belgium

Manufacturer responsible for batch release:
Pfizer Manufacturing Belgium NV
Rijksweg 12
2870 Puurs-Sint-Amands
Belgium

For any information about this medicine, please contact the local representative of the Marketing Authorisation Holder:

België/Belgique/Belgien
Luxembourg/Luxemburg
Pfizer NV/SA
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Lietuva
Pfizer Luxembourg SARL filialas Lietuvoje
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България
Пфайзер Люксембург САРЛ, Клон България
Тел: +359 2 970 4333

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Tel: + 36 1 488 37 00

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Tel: +34 91 490 99 00

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Pfizer
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Pfizer Croatia d.o.o.
Tel: + 385 1 3908 777

Ireland
Pfizer Healthcare Ireland
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Tel.: + 371 670 35 775

Österreich
Pfizer Corporation Austria Ges.m.b.H
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Pfizer Polska Sp. z o.o.
Tel.: +48 22 335 61 00

Portugal
Laboratórios Pfizer, Lda.
Tel: +351 21 423 5500

România
Pfizer Romania S.R.L
Tel: +40 (0) 21 207 28 00

Slovenija
Pfizer Luxembourg SARL
Pfizer, podružnica za svetovanje s področja farmacevtske dejavnosti, Ljubljana
Tel.: +386 (0)1 52 11 400

Slovenská republika
Pfizer Luxembourg SARL, organizačná zložka
Tel: + 421 2 3355 5500

Suomi/Finland
Pfizer Oy
Puh/Tel: +358 (0)9 430 040

Sverige
Pfizer AB
Tel: +46 (0)8 550 520 00

United Kingdom (Northern Ireland)
Pfizer Limited
Tel: + 44 (0) 1304 616161

This leaflet was last revised in.

Other sources of information

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

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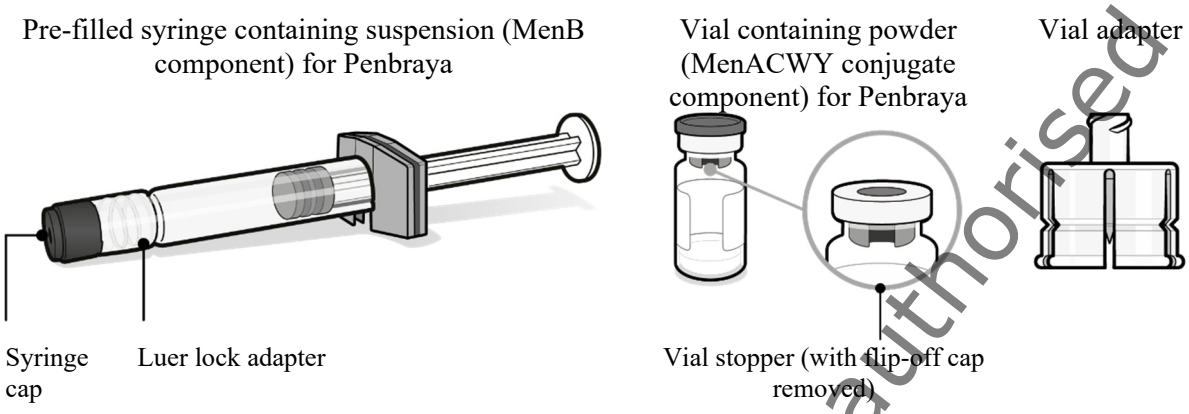
The following information is intended for healthcare professionals only:

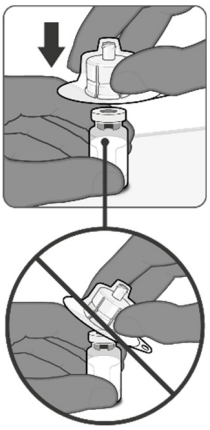
The lyophilised powder (MenACWY conjugate component) must be reconstituted only with the provided pre-filled syringe containing suspension (MenB component) using the vial adapter to form Penbraya.

Preparation of Penbraya for administration



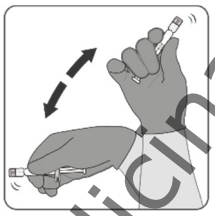
Step 1. Prepare vial adapter

- Remove plastic flip-off cap from vial and wipe the rubber stopper.
- Open the packaging containing the vial adapter by peeling the top cover off.
- Do not remove the vial adapter from its package.



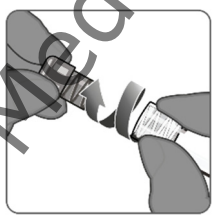
Step 2. Attach the vial adapter to the vial containing powder for Penbraya

- Hold the base of the vial on a flat surface.
- Keep the vial adapter in the packaging and orient it vertically over the centre of the vial so that the adapter spike aligns with the centre of the vial's rubber stopper.
- Connect the vial adapter to the vial with a straight downward push. The vial adapter will lock into place.
- Do not push vial adapter in at an angle as this may result in leaking during use.
- Remove the vial adapter packaging.



Step 3. Resuspend suspension contained in the pre-filled syringe

- During storage, a white deposit and clear supernatant may be observed in the pre-filled syringe containing the suspension.
- Shake the syringe vigorously to obtain a visually white homogenous suspension. Do not use the syringe if the contents cannot be resuspended.

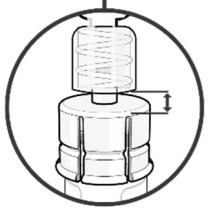


Step 4. Remove the pre-filled syringe cap

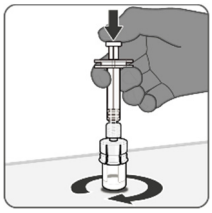
- For all syringe assembly steps, hold the syringe only by the Luer lock adapter located at the tip of the syringe. This will prevent the Luer lock adapter from detaching during use.
- Remove the syringe cap by slowly turning the cap counterclockwise while holding the Luer lock adapter.

Step 5. Connect the pre-filled syringe to the vial adapter

- Hold the syringe's Luer lock adapter and connect it to the vial adapter by turning clockwise.
- Stop turning when you feel resistance, overtightening the syringe may result in leaking during use.

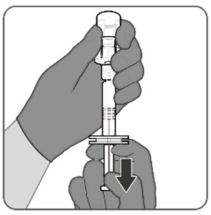


- Once the syringe is securely attached to the vial adapter, there will be a small space between the top of the vial adapter and the Luer lock adapter of the syringe.



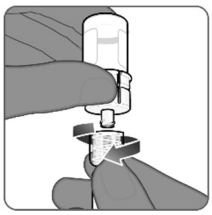
Step 6. Inject suspension and gently swirl

- Inject the entire contents of the syringe containing the MenB suspension into the vial.
- Do not remove the empty syringe.
- While holding the plunger rod down, gently swirl the vial in a circular motion until the powder is completely dissolved (less than 1 minute).



Step 7. Withdraw the contents

- Invert the vial completely with the vial adapter and syringe still attached.
- Slowly withdraw the entire contents into the syringe.
- Drawing up all obtainable content ensures a complete 0.5 mL dose for administration.
- Do not pull the plunger rod out.



Step 8. Disconnect syringe

- Hold the Luer lock adapter of the syringe and disconnect the syringe from the vial adapter by turning counterclockwise.

Step 9. Attach needle

- Attach a sterile needle suitable for intramuscular injection to the pre-filled syringe by turning clockwise.
- Do not overtighten the needle as this may result in leaking during use.

Step 10. Resuspend and visual inspection

- Immediately prior to dose administration, shake the syringe to ensure a homogenous suspension.
- The prepared vaccine is a white homogenous suspension.
- Visually inspect the vaccine for large particulate matter and discoloration prior to administration. Do not use if large particulate matter or discoloration is found.