Chemotherapy Protocol

SKIN CANCER

Talimogene laherparepvec (T-VEC)

Regimen

- Skin – Talimogene laherparepvec (T-VEC)

Indication

- Talimogene laherparepvec (T-VEC) is recommended, in adults, as an option for treating unresectable, regionally or distantly metastatic (Stage IIIB, IIIC or IVM1a) melanoma that has not spread to bone, brain, lung or other internal organs, only if;
    - treatment with systemically administered immunotherapies is not suitable and
    - the company provides talimogene laherparepvec with the discount agreed in the patient access scheme.
- WHO Performance Status 0 or 1

Toxicity

Drug	Adverse Effect
Talimogene laherparepvec (T-VEC)	Herpetic infections (including cold sores and herpes keratitis), immune-mediated events, influenza like illness, injection site reactions, myalgia, arthralgia, gastrointestinal disturbances, cough, headache, dehydration, ear pain, peripheral oedema, anaemia

The adverse effects listed are not exhaustive. Please refer to the relevant Summary of Product Characteristics for full details.

Monitoring

Regimen

- FBC, LFTs and U&Es prior to each dose

Dose Modifications

Haematological

Talimogene laherparepvec is contraindicated in patients who are severely immunocompromised

Hepatic Impairment

No adjustment in dosage is required in patients with hepatic impairment.

Renal Impairment

No adjustment in dosage is required in patients with renal impairment.

Other

Talimogene laherparepvec treatment may need to be temporarily held in the event of cellulitis. Careful wound care and infection precautions are recommended, particularly if tissue necrosis results in open wounds.

Regimen

28 day cycle continued for at least 6 cycles or as long as there is clinical benefit (24 cycles will be set in ARIA)

Cycle 1

Drug	Dose	Day	Route
Talimogene laherparepvec	Up to 4ml 10^6 (**1 million**) PFU/mL	1	Intra-lesional
Talimogene laherparepvec	Up to 4ml 10^8 (**100 million**) PFU/mL	22	Intra-lesional

Cycle 2 onwards

Drug	Dose	Day	Route
Talimogene laherparepvec	Up to 4ml 10^8 (**100 million**) PFU/mL	8 and 22	Intra-lesional

Talimogene laherparepvec (T-VEC) is an attenuated herpes simplex virus type-1 (HSV-1) given by intra-lesional injection according to the schedule below.

Treatment visit	Treatment interval	Maximum total injection volume	Dose concentration	Prioritisation of lesions to be injected
Initial	N/A	Up to 4 mL	10^6 (1 million) PFU/mL	Inject largest lesion(s) first. Prioritise injection of remaining lesions based on lesion size until maximum injection volume is reached.
Second	3 weeks after initial treatment	Up to 4 mL	10^8 (100 million) PFU/mL	First inject any new lesions (lesions that may have developed since initial treatment). Prioritise injection of remaining lesions based on lesion size until maximum injection volume is reached.
All subsequent treatment visits (including re-initiation)	2 weeks after previous treatment	Up to 4 mL	10^8 (100 million) PFU/mL	First inject any new lesions (lesions that may have developed since previous treatment). Prioritise injection of remaining lesions based on lesion size until maximum injection volume is reached.

The volume of talimogene laherparepvec to be injected into each lesion is dependent on the size of the lesion and should be determined according to the table below. The total injection volume for each treatment session should be up to a maximum of 4 mL

Lesion size (longest dimension)	Talimogene laherparepvec injection volume
> 5 cm	up to 4 mL
> 2.5 cm to 5 cm	up to 2 mL
> 1.5 cm to 2.5 cm	up to 1 mL
> 0.5 cm to 1.5 cm	up to 0.5 mL
≤ 0.5 cm	up to 0.1 mL

Patients may experience increase in size of existing lesion(s) or the appearance of a new lesion prior to achieving a response. As long as there are injectable lesion(s) remaining, talimogene laherparepvec should be continued for at least 6 months unless the physician considers that the patient is not benefitting from talimogene laherparepvec treatment or that other treatment is required.

Talimogene laherparepvec treatment may be reinitiated if new lesions appear following a complete response and the physician considers that the patient will benefit from treatment.

Dose Information

- Talimogene laherparepvec is available as a solution for injection in 1ml vials containing:
  - 10^6 (1 million) PFU/mL - for initial dose only
  - 10^8 (100 million) PFU/mL - for all subsequent doses

- Vials must be stored in the freezer. Allow to thaw at room temperature until talimogene laherparepvec solution is liquid (approximately 30 minutes). Gently swirl. Do NOT shake.

Administration Information

- Treatment should only be administered by clinicians/nurses with specialist training.

- In order to improve the traceability of biological medicinal products, the tradename and the batch number of the administered product should be clearly recorded (or stated) in the patient file.

Extravasation

- N/A

Additional Information

- Patients must be issued with a patient alert card

- No interaction studies have been conducted with talimogene laherparepvec. Aciclovir and other anti-viral agents may interfere with the effectiveness of talimogene laherparepvec if administered systemically or topically directly to the injection site. Consider the risks and benefits of talimogene laherparepvec treatment before administering aciclovir or other anti-viral agents indicated for management of herpetic infection.

- In order to improve the traceability of biological medicinal products, the tradename and the batch number of the administered product should be clearly recorded (or stated) in the patient file.

Coding

- Procurement – X70.8

- Delivery – X72.9

References
1. Talimogene laherparepvec for treating unresectable metastatic melanoma. NICE TA410 28/09/2016
2. Andtbacka RHI, Collichio F, Harrington J, et al. (2019) Final analyses of OPTiM: a randomized phase III trial of talimogene laherparepvec versus granulocyte-macrophage colony-stimulating factor in unresectable stage III–IV melanoma. Journal for ImmunoTherapy of Cancer, 7, 145.

REGIMEN SUMMARY

Talimogene laherparepvec (T-VEC)

Cycle 1 Day 1

1. Warning – Prescribe total volume required for this treatment.
   Prescribe the total volume (max 4ml) of talimogene laherparepvec required for this treatment according the size of the lesions to be injected.

Lesion size (longest dimension)	Injection volume
> 5 cm	up to 4 mL
> 2.5 cm to 5 cm	up to 2 mL
> 1.5 cm to 2.5 cm	up to 1 mL
> 0.5 cm to 1.5 cm	up to 0.5 mL
≤ 0.5 cm	up to 0.1 mL

   Each vial contains 1ml of talimogene laherparepvec.

2. Talimogene laherparepvec 10^6 PFU/ml intra-lesional injection 0.001gram
   Please ensure the total volume (max 4ml) of talimogene laherparepvec required for this treatment has been prescribed.
   Thaw vials at room temperature until the solution is liquid (approximately 30 minutes). Gently swirl. Do NOT shake.
   After administration please record the actual volume of talimogene laherparepvec administered.

Cycle 1 Day 22

3. Warning – Prescribe total volume required for this treatment.
   Prescribe the total volume (max 4ml) of talimogene laherparepvec required for this treatment according the size of the lesions to be injected.

Lesion size (longest dimension)	Injection volume
> 5 cm	up to 4 mL
> 2.5 cm to 5 cm	up to 2 mL
> 1.5 cm to 2.5 cm	up to 1 mL
> 0.5 cm to 1.5 cm	up to 0.5 mL
≤ 0.5 cm	up to 0.1 mL

   Each vial contains 1ml of talimogene laherparepvec.

4. Talimogene laherparepvec 10^8 PFU/ml intra-lesional injection 0.001gram
   Please ensure the total volume (max 4ml) of talimogene laherparepvec required for this treatment has been prescribed.
   Thaw vials at room temperature until the solution is liquid (approximately 30 minutes). Gently swirl. Do NOT shake.
   After administration please record the actual volume of talimogene laherparepvec administered.

Cycle 2 onwards Days 8 and 22

5. Warning – Prescribe total volume required for this treatment.
   Prescribe the total volume (max 4ml) of talimogene laherparepvec required for this treatment according the size of the lesions to be injected.

Lesion size (longest dimension)	Injection volume
> 5 cm	up to 4 mL
> 2.5 cm to 5 cm	up to 2 mL
> 1.5 cm to 2.5 cm	up to 1 mL
> 0.5 cm to 1.5 cm	up to 0.5 mL
≤ 0.5 cm	up to 0.1 mL

   Each vial contains 1ml of talimogene laherparepvec.

6. Talimogene laherparepvec 10^8 PFU/ml intra-lesional injection 0.001gram
   Administration instructions
   Please prescribe the total volume of talimogene laherparepvec to be administered.
   Thaw vials at room temperature until the solution is liquid (approximately 30 minutes). Gently swirl. Do NOT shake.
   After administration please record the actual volume of talimogene laherparepvec administered.

DOCUMENT CONTROL

Version	Date	Amendment	Written By	Approved By
1	Jan 2024	None	Rebecca Wills Pharmacist	Dr Mathew Wheater Consultant Medical Oncologist

This chemotherapy protocol has been developed as part of the chemotherapy electronic prescribing project. This was and remains a collaborative project that originated from the former CSCCN. These documents have been approved on behalf of the following Trusts;

Hampshire Hospitals NHS Foundation Trust
NHS Isle of Wight
Portsmouth Hospitals NHS Trust
Salisbury NHS Foundation Trust
University Hospital Southampton NHS Foundation Trust
Western Sussex Hospitals NHS Foundation Trust

All actions have been taken to ensure these protocols are correct. However, no responsibility can be taken for errors that occur as a result of following these guidelines.