



Medicine: nivolumab (brand name: Opdivo®)

Bristol-Myers Squibb Pharmaceuticals Ltd

The Scottish Medicines Consortium (SMC) has assessed nivolumab used together with ipilimumab for treating adults with metastatic colorectal cancer, where the cancer cells have certain genetic changes that mean the cancer can be called microsatellite instability-high (MSI-H) or mismatch repair deficient (dMMR). It is used in patients that have been previously treated with a combination of chemotherapy medicines called fluoropyrimidine-based chemotherapy. This document summarises the SMC decision and what it means for patients.

What has SMC said?

After careful consideration, SMC has accepted nivolumab used together with ipilimumab for the treatment of metastatic colorectal cancer as described above.

This SMC advice takes into account a confidential discount offered by the pharmaceutical company that improves the cost-effectiveness of nivolumab.

What does SMC's decision mean for patients?

If your healthcare professional thinks that nivolumab for use as described above is the right medicine for you, you should be able to have the treatment on the NHS in Scotland.



What is nivolumab used for?

Nivolumab is used for the treatment of colorectal cancer. Colorectal cancer is cancer of the large bowel or rectum. Nivolumab is used together with ipilimumab when the cancer is metastatic (has spread to other parts of the body), after the patient has been treated with fluoropyrimidine-based combination chemotherapy. It is used when the cancer has genetic changes that mean that it can be called MSI-H or dMMR. Patients with this type of metastatic colorectal cancer may not respond as well to current treatments.

How does nivolumab work?

Nivolumab is an immunotherapy. This is a type of cancer treatment that stimulates the immune system (the body's natural defence system) to fight the cancer. Some cancer cells produce proteins that switch off immune cells called T-cells. Nivolumab attaches to a protein on the T-cells called PD-1. This stops the cancer from switching off the T-cells, helping the immune system fight the cancer. Ipilimumab blocks the activity of a molecule called CTLA-4, a protein that prevents T-cells

from attacking cancer cells. The double action of nivolumab and ipilimumab together increases T-cell activity which allows the immune system to recognise, attack and destroy the cancer cells more effectively.

How does SMC make its decision?

SMC carefully considers every new medicine to make sure it benefits patients and is considered to be an acceptable use of the limited resources in NHSScotland.

To do this SMC considers the following:

- Evidence from the company about how well the medicine works compared with current treatments available in Scotland, in relation to how much they will cost to buy and administer.
- The potential impact of the medicine on patients and carers.
- Advice from healthcare professionals about any benefits of the new medicine compared to current treatment, along with how the new medicine is likely to be used.

When SMC assesses a medicine it takes account of the needs of all patients in NHSScotland, not only those who may be treated with the medicine under consideration.

You can find more detailed information about the SMC assessment of nivolumab by looking at the SMC Detailed Advice Document (SMC2394).

More information

The organisation below can provide more information and support for people with colorectal cancer and their families. SMC is not responsible for the content of any information provided by external organisations.

Bowel Cancer UK



<https://www.bowelcanceruk.org.uk>



0207 940 1760

You can find out more about nivolumab (Opdivo®) in the European public assessment report (EPAR) summary for the public by searching for the medicine name on the European Medicines Agency (EMA) website.



<https://www.ema.europa.eu/en>