

Monthly briefings are produced in order to help members of the media and other interested groups understand the work and advice of the Scottish Medicines Consortium. The full advice for each drug that we have assessed can be found at www.scottishmedicines.org

SMC has this month accepted the following drugs for use within NHSScotland.

cetuximab (Erbix[®])

SMC accepted cetuximab for the treatment of patients with epidermal growth factor receptor (EGFR)-expressing, Kirsten rat sarcoma (KRAS) wild-type metastatic (spreading) colorectal cancer in combination with chemotherapy. Use is restricted to patients with metastases confined to the liver that are considered non-resectable but may become amenable to potentially curative liver resection after responding to chemotherapy plus cetuximab.

- Metastatic colorectal cancer is cancer of the large bowel and rectum that has spread to other parts of the body. KRAS is a gene that commonly mutates in 35-45% of people with colorectal cancer.¹ The presence of the KRAS mutation helps to decide appropriate treatment as patients with tumours exhibiting the KRAS mutation do not respond to conventional treatment with epidermal growth factor inhibitors.
- Chemotherapy is given to destroy cancer cells or stop them from spreading. Cetuximab is a monoclonal antibody that prevents the binding and activation of those signalling pathways which are essential for cancer cell growth, invasion and spread. Cetuximab is given via a drip once weekly.
- Results from several studies in patients with KRAS wild-type status who had not previously received chemotherapy for metastatic disease showed an increase in overall response rate and increased progression-free survival time by approximately 0.5-1 month, when cetuximab was added to standard combination chemotherapy.

About SMC

The purpose of the Scottish Medicines Consortium (SMC) is to accept for use those newly licensed drugs that clearly represent good value for money to NHSScotland.

SMC analyses information supplied by the drug manufacturer on the health benefits of the drug and justification of its price.

Because the NHS has limited resources, SMC works to make sure that those drugs which represent good value for money are accepted for routine use as quickly as possible so that they can benefit patients.

The Consortium is made up of lead clinicians, pharmacists and health economists together with representatives of health boards, the pharmaceutical industry, the public and the Scottish Government.

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www.scottishmedicines.org.uk

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¹www.mplnet.com/kras

- Side effects were more commonly experienced when cetuximab was added to chemotherapy than with chemotherapy alone and included skin reactions, neutropenia (abnormally low white blood cell count) and diarrhoea.
- This SMC advice on cetuximab takes account of the benefits of a patient access scheme (PAS). A PAS is a scheme proposed by a manufacturer in order to improve the cost effectiveness of a drug and enable patients to receive access to cost-effective new medicines. The PAS proposed for cetuximab would mean the drug is available at a discounted price to NHS Scotland.
- SMC accepted cetuximab for use in NHSScotland because it has the potential to give this select group of patients a longer period of time without the disease progressing, perhaps allowing the opportunity for surgery to remove the tumour. This SMC advice is dependent upon the continuing availability of the PAS in NHSScotland.

In March 2009, it was announced that an agreed national framework would be introduced to allow the operation of PAS in NHSScotland. A patient access scheme assessment group (PASAG) will be established to review and advise NHSScotland on the feasibility of proposed schemes for implementation. PASAG will operate separately from SMC in order to maintain the integrity and independence of the assessment process of SMC. At present, a transitional PASAG has been established under the auspices of NHS National Services Scotland to support the development of a national framework for the assessment of PAS.

pemetrexed (Alimta®)

SMC accepted pemetrexed in combination with cisplatin for first-line treatment of patients with locally advanced or metastatic (spreading) non-small cell lung cancer that does not affect squamous cells (cells that line the airways). It is restricted to use in patients with particular types of non-small cell lung cancer (adenocarcinoma or large cell carcinoma).

- Non-small cell lung cancer (NSCLC) is a type of lung cancer. About 80 out of every 100 lung cancers are diagnosed as NSCLC, and it is usually caused by smoking.² There are three types of NSCLC: squamous cell carcinoma, adenocarcinoma (cancer of airway cells that produce mucus) and large cell carcinoma (cancer of large cells in the airways). This SMC decision relates to the use of pemetrexed primarily in patients with adenocarcinoma or large cell carcinoma.
- NSCLC may be treated with surgery, drugs, radiation or by a combination of radiation and drugs. The treatment used depends on the size and spread of the cancer when it is diagnosed. Pemetrexed is a drug that works by blocking the growth of cancer cells. It is given through a drip.
- In patients with NSCLC that did not affect the squamous cells, treatment with pemetrexed and cisplatin showed a small improvement in patient survival compared with another cisplatin combination regimen.
- Fewer blood toxicities such as neutropenia, anaemia (low numbers of red blood cells) and

²www.cancerbackup.org.uk

thrombocytopenia (low numbers of a type of white blood cells called platelets) were reported, and fewer transfusions were administered in the pemetrexed and cisplatin group. Eye disorders, kidney failure, dry skin and pigmentation disorder were more likely to occur in patients treated with pemetrexed and cisplatin than with the other regimen.

- SMC accepted pemetrexed in combination with cisplatin for use in patients with particular types of NSCLC (adenocarcinoma or large cell carcinoma) because it offers some benefit to this group of patients at an acceptable cost.

ustekinumab (Stelera[®])

SMC accepted ustekinumab for use within NHSScotland for the treatment of moderate to severe plaque psoriasis in adults who have failed to respond to, or who have a contraindication to, or are intolerant to other systemic therapies including ciclosporin, methotrexate and psoralen and UVA treatment (PUVA).

- Psoriasis is a chronic skin disease which causes red, raised skin patches that produce dead, flaky skin cells. Plaque psoriasis is the most common type of this skin condition and can affect any part of the body. Symptoms include red, itchy and sometimes painful skin. The irritation is caused by a release of inflammatory substances that cause the blood vessels to widen and the area to become red, swollen and itchy.
- In psoriasis, certain immune cells (T cells) are triggered and become overactive. The T cells produce inflammatory chemicals, and act as if they were fighting an infection or healing a wound, which leads to the rapid growth of skin cells causing psoriatic plaques to form. Ustekinumab is a new treatment that slows down the inflammation. It is given as an injection at weeks 0 and 4 and then every 12 weeks afterwards. Treatment should be discontinued if patients have not shown any response after 28 weeks.
- In a study of patients treated with ustekinumab compared with an alternative treatment, significantly more patients achieved at least 75% improvement in their psoriasis.
- A condition known as injection site erythema was less frequent in those treated with ustekinumab. Rates of infections or serious infection were similar between both treatment groups.
- This SMC advice on ustekinumab takes account of the benefits of a patient access scheme (PAS). A PAS is a scheme proposed by a manufacturer in order to improve the cost effectiveness of a drug and enable patients to receive access to cost-effective new medicines.
- SMC accepted ustekinumab for use because, when the benefits of the PAS were included in the economic case, the manufacturer's justification of the treatment's health benefits in relation to its cost was favourable enough to gain acceptance. This SMC advice is dependent upon the continuing availability of the PAS in NHSScotland.

sildenafil citrate (Revatio®)

SMC accepted sildenafil for the treatment of pulmonary arterial hypertension (PAH). Its use should be restricted to initiation by specialists working in the Scottish Pulmonary Vascular Unit or others with appropriate expertise.

- Pulmonary arterial hypertension (PAH) is a rare and debilitating disease where there is severe narrowing of the blood vessels of the lungs causing abnormally high pressure in the vessels taking blood from the heart to the lungs. The disease varies in severity (or 'class').
- Sildenafil is a drug used to treat patients with PAH to improve their ability to carry out physical activity. It works by blocking the breakdown of a substance called cyclic guanosine monophosphate, allowing blood vessels to expand, thereby helping to lower the blood pressure and improve symptoms. It is given as a tablet and used in patients with slight (class II) or marked (class III) limitation of physical activity.
- There is limited evidence of effectiveness from short-term clinical trials. Patients who received sildenafil were able to walk slightly further in 6 minutes compared with the distance they could walk before receiving treatment. There was no increase in the distance walked by patients who received placebo (a dummy drug containing no active treatment).
- More patients who were given sildenafil in a study experienced flushing than patients who were given placebo.
- SMC accepted sildenafil for use in NHSScotland because it can be given as a tablet and is cheaper than another drug licensed for treatment of PAH.

epoetin alfa (Binocrit®)

SMC accepted epoetin alfa for use:

-as treatment for anaemia associated with chronic renal failure in adults and children on haemodialysis and adults on peritoneal dialysis

-as treatment for severe anaemia originating in the kidneys in adults with clinical symptoms and renal insufficiency not yet undergoing dialysis.

- Kidneys produce a hormone called erythropoietin. This hormone stimulates the bone marrow to produce red blood cells that contain a protein called haemoglobin. Haemoglobin carries oxygen around the body. When haemoglobin cannot be produced in normal amounts then the body does not receive enough oxygen to meet its needs. This is called anaemia. It occurs in patients with kidney disease, because the damaged kidneys cannot produce enough erythropoietin. Anticancer drugs can also cause anaemia by destroying red blood cells as they grow and divide.
- Binocrit® is a drug given by injection which acts like the hormone erythropoietin and is one of a class of drugs called erythropoiesis stimulating agents (ESA). It increases the amount of red blood cells and haemoglobin produced.

- A study has shown that Binocrit[®] is similar to, but not an exact copy of, epoetin alfa (Eprex[®]) and is as effective.
- Binocrit[®] has similar side effects to Eprex[®] in patients undergoing dialysis. Important risks associated with any erythropoietin treatment are pure red cell aplasia (a type of anaemia), unwanted blood clotting and the potential to promote growth of cancer cells.
- SMC accepted Binocrit[®] for use in NHSScotland because it could offer value for money, costing less than some similar treatments.

somatropin (Omnitrope[®])

SMC accepted Omnitrope[®]:

-as replacement therapy in adults with pronounced growth hormone deficiency

-for use in infants, children and adolescents with growth disturbance or Prader-Willi syndrome (PWS) due to insufficient secretion of growth hormone; or growth disturbance associated with Turner syndrome, chronic renal insufficiency or in those born small for gestational age.

- Growth disturbance can be caused by a lack of the body's natural growth hormone or due to some other condition.
- Omnitrope[®] is a form of human growth hormone given by injection to treat growth disturbance.
- Studies have shown that Omnitrope[®] is similar to, but not an exact copy of, somatropin (Genotropin[®]), another form of human growth hormone, and is as effective.
- Side effects of Omnitrope[®] are similar to those of Genotropin[®] and include hypothyroidism (a reduced level of thyroid hormone), eosinophilia (high levels of a type of white blood cell) and bleeding or bruising at the injection site.
- SMC accepted Omnitrope[®] for use in NHSScotland because it is value for money, costing less than some similar treatments.

ulipristal acetate (EllaOne[®])

SMC accepted ulipristal acetate for use as emergency contraception within 5 days of unprotected sexual intercourse or contraceptive failure.

- Contraception can be used to prevent unwanted pregnancy. If no contraception has been used or if contraception fails (for example if a condom bursts), emergency contraception taken after sex may prevent pregnancy.

- Ulipristal acetate is a tablet which can prevent pregnancy if taken as soon as possible, but no later than 5 days, after sex. It works by preventing or delaying production of the egg.
- Studies have shown that the pregnancy rate among women who took ulipristal acetate was lower than an estimated rate that would be expected without the use of emergency contraception. Ulipristal acetate worked at least as well as another emergency contraceptive.
- In studies, side effects experienced by women who took ulipristal were similar to those in women who took the other oral emergency contraceptive and included headache, irregular periods, nausea, fatigue, dizziness and stomach pain.
- SMC accepted ulipristal acetate for use in NHSScotland because it is the first licensed emergency contraception to be effective when used up to 5 days after unprotected intercourse and offered reasonable value for money.

SMC decided that the following drug is not value for money for NHSScotland.

aliskiren (Rasilez[®])

SMC did not accept aliskiren for the treatment of essential hypertension.

- Essential hypertension is high blood pressure for which there is no specific cause. High blood pressure should not be allowed to continue for a long time because it can damage the blood vessels of the brain, heart and kidneys, and may result in a stroke, heart failure, heart attack or kidney failure. Lowering the blood pressure to a normal level reduces the risk of developing these disorders.
- Aliskiren belongs to a new class of drugs called renin inhibitors. These reduce the amount of angiotensin II (a substance produced by the body which increases blood pressure by constricting blood vessels), relaxing the blood vessels and lowering blood pressure.
- Studies have shown that aliskiren is as effective as other treatments used to lower blood pressure. Its long-term effects are not yet known.
- In studies, side effects included diarrhoea, cough, peripheral oedema (swelling), fatigue, rash, and influenza. Cough and peripheral oedema were less common in patients given aliskiren than in patients given some other treatments.
- SMC did not accept aliskiren for use within NHSScotland because the economic case submitted by the manufacturer did not show that it would be value for money and the clinical data were not robust.

For drugs that have not been accepted by SMC, all NHS boards have procedures in place to consider individual requests when a doctor feels the drug would be right for a particular patient. SMC has told the manufacturers why the drug was not accepted and would be pleased to receive any resubmission.

For further information and to view the complete advice for the drugs listed above, visit our website at:

www.scottishmedicines.org.uk