Your treatment for breast cancer or gastric (cancer of the stomach, including cancer of the gastro-oesophageal junction – the join between the stomach and oesophagus) cancer includes a biologic medicine called trastuzumab, you may have been treated with the original brand of this medicine (brand name: Herceptin®). Your hospital now uses a biosimilar version of this medicine. This leaflet will help you understand more about biologic and biosimilar medicines, but if you have any questions please ask your pharmacist, nurse or doctor.

**What is a biologic?**

Biologic medicines are made by living cells in a controlled way, rather than being built as synthetic chemicals like regular medicines, such as tablets. Think of them in the same way that bread or yoghurt is made using living cells. The original biologics were first used to treat people with serious illnesses in the UK over 20 years ago and they have improved life for millions of people worldwide.

**What is a biosimilar?**

You may have heard of some medicines you take described as generics, for example supermarket own brand ibuprofen is the generic version of Nurofen®. Generics are exact copies of the original medicine and are relatively simple to copy and manufacture. The same idea applies to biosimilars, but it is not possible to make an exact copy of an original biologic medicine due to their size and the complex way they are made. Biosimilars are highly similar to the original medicine but not identical. They have been thoroughly tested to show no difference in terms of how the medicine works, its effectiveness and safety.

**How can I be confident that it will work the same?**

The companies that make biosimilars have to show the licensing authority very strict evidence of their effectiveness, safety and quality. Clinical studies have to be conducted in a large group of people to show that the medicine works just as well and is just as safe as the original biologic. Biosimilars take several years and cost many millions of pounds to develop and prove that they work in the same way to the original medicine. This is another way biosimilars are different to generics. Generics do not need studies in people with disease and take much less time and money to develop.
What are the benefits?

You can expect to have the same results from your biosimilar trastuzumab as your previous medicine. There is a benefit to the NHS too. Biosimilars are usually provided at a much lower price than the original product. This helps the NHS provide complex medicines at better prices and improve treatment for people with conditions like yours.

What should I do if I have any problems?

You are monitored in exactly the same way regardless of which brand of trastuzumab you have. All the brands of trastuzumab can cause similar side effects. If you experience any problems with your treatment, report it promptly to your medical team.

Who can I approach for further advice?

If you have further queries about biosimilars, then please do not hesitate to speak to a member of your treating team: your doctor, pharmacist, nurse or keyworker.

Acknowledgments:

This document has been adapted from
- Cancer Vanguard “General Biosimilar Information Leaflet: For Patients Changed from Biologic to Biosimilar” Available at [http://cancervanguard.nhs.uk/biosimilars-getting-it-right-first-time/](http://cancervanguard.nhs.uk/biosimilars-getting-it-right-first-time/) Last Accessed 22.03.18 The Cancer Vanguard and Sandoz are acknowledged as authors

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