Commissioning framework for biological medicines

(including biosimilar medicines)

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Contents

Executive Summary

Biological medicines are important, clinically effective medicines which can significantly impact on a patient's disease. 6 of the top 10 medicines prescribed in our hospitals by spend are biological products and are used to treat a range of conditions from cancer through to chronic inflammatory conditions such as rheumatoid arthritis and inflammatory bowel disease.

Many biological medicines are coming off patent and "biosimilars" are becoming available. These medicines are highly similar to other biological medicines already licensed for use but are typically much cheaper than the originator products. This competition provides the NHS with an opportunity to save hundreds of millions of pounds, whilst also increasing access to these important medicines. There is the potential to realise savings of at least £200-300m per year by 2020/21 if the NHS embraces the use of best value biological medicines in a proactive, systematic, and safe way. Our aim is that at least 90% of new patients will be prescribed the best value biological medicine within 3 months of launch of a biosimilar medicine, and at least 80% of existing patients within 12 months, or sooner if possible. This guidance is designed to support the NHS to achieve this.

Everyone has a part to play, as summarised in the diagram below. CCGs and providers must work together to develop plans for the quick and effective uptake of the best value biological medicine. Shared decision making between clinical prescribers and patients will be vital if the best value, clinically effective medicines are to be used. Regional Medicines Optimisation Committees will coordinate support and ensure plans are in place for the systematic uptake of biosimilar medicines by the end of 2017.

Patients	• Talk to your doctor about your medicines, so you understand them and what the different options are. • Ask them if there is a biosimilar medicine that would be appropriate for you.
Prescribers	• Consider whether a biosimilar medicine may be appropriate for new patients. • Consider whether it would be appropriate to switch existing patients to a biosimilar medicine. • Keep up to date with news from your CCG about biosimilar medicines becoming available.
Providers	• Put in place policies and support for clinicians to enable them to make clinically and cost effective choices in prescribing biological medicines. • Have a communication and implementation plan in place to alert prescribers to new and better value biological and biosimilar medicines that become available, and engage patients affected
Commissioners	• Ensure that your providers have in place policies to encourage clinically and cost effective prescribing of biological medicines • Have a communication and implementation plan in place to alert providers to new and better value biological and biosimilar medicines that become available, and to engage patients. • Liaise with your NHS England Regional Pharmacist to understand whether there are framework agreements for the biological and biosimilar medicines that you pay for.

1. Introduction

There are actions which can be taken proactively by patients, prescribing clinicians, care providers, commissioners and oversight bodies to realise the therapeutic and economic opportunities of biological and biosimilar medicines. This document clearly sets out these actions, which can provide the much needed headroom for funding innovative treatments and/or improvements in pathways of care.

The biological medicines market will only increase in complexity in the coming years as more biological medicines lose patent exclusivity and additional biosimilar medicines come to market. It is important that the NHS stays on the front foot in adopting these biosimilar medicines.

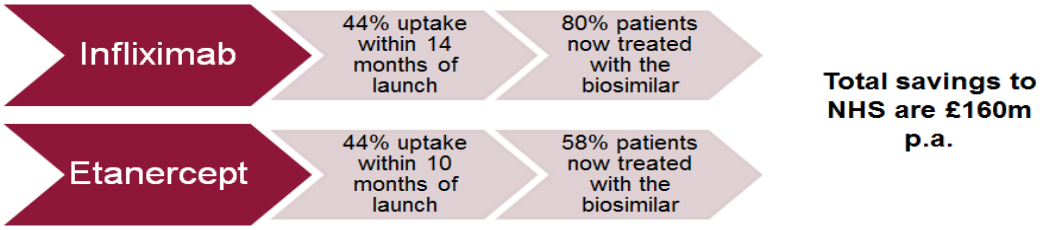
Patients, prescribing clinicians, care providers, commissioners and oversight bodies must therefore work closely together to quickly and consistently realise the potential savings from a switch to biosimilar medicines.

2. Background and purpose

The document Next Steps on the NHS Five Year Forward View[1] makes clear that the NHS must take action to maximise the value it derives for patients from the money it spends on medicines. The NHS spent **£16.8 billion** on medicines in 2015/16; an increase of 8% on the previous year. This is a trend which is forecast to continue as new medicines enter the market and as the population ages.

As the biosimilar market develops, increased competition between biological medicines has the potential to deliver significant savings of at least **£200m to £300m per year by 2020/21** through increased uptake of the best value biologic medicine, including biosimilars. Such action will help the NHS to maximise the value for patients from the amount it spends on these medicines and enable much needed headroom for funding innovative treatments and/or improvements in pathways of care.

Experience from the last ten years, where collaborative approaches have successfully helped the NHS to introduce biological medicines and biosimilar medicines show that our aim is realistic and achievable. The NHS has already benefitted from significant savings on some medicines and it is getting better at adopting biosimilars[2].



[1] https://www.england.nhs.uk/publication/next-steps-on-the-nhs-five-year-forward-view/

[2] Infliximab is used to treat rheumatology conditions and inflammatory bowel disease; etanercept is used for rheumatology conditions. These biosimilars came onto the market in March 2015 and April 2016 respectively. (Source: Rx-Info Define)

But there is much more to do. Biosimilar Rituximab (which treats cancer and rheumatoid arthritis) recently became available; next year, Adalimumab – on which the NHS spent over £250m in 2015/16 – will enter the market. The NHS must ensure that it has the right commissioning framework in place to realise the potential savings benefits of a switch to these biosimilars and it is for this purpose that this framework has been developed.

In taking any decisions to move to a biosimilar medicine (further detail on what constitutes a biosimilar medicine is given in **Annex A**), treatment decisions should always be made firstly on the basis of clinical judgement for individual patients and secondly on the basis of the overall value proposition offered by individual medicines. If more than one treatment is suitable, the best value biological medicine, including biosimilars, should be chosen. Strong safeguards are required to ensure that patients who have responded well to existing medicine and who are then switched are closely monitored to ensure efficacy and safety.

The purpose of this document is to support commissioners to act promptly to make the most of the opportunity presented by increased competition amongst biological medicines, including biosimilar medicines. In particular, this framework seeks to set out the importance of taking a collaborative approach to the commissioning of biological medicines, including biosimilar medicines, from the outset, as well as setting out how this can be achieved.

3. Scale of the Opportunity

Competition between different biological medicines, including biosimilar medicines, creates increased access and choice for patients and clinicians, and enhanced value propositions for individual medicines. When biosimilar medicines have entered the market, often offering significant discounts on the original biological medicine, savings have been realised.

Significant savings are achieved when patents expire on originator medicines[3] and exclusivity is lost. With additional biosimilar medicines in development or under review for approval – see ***Figure 1*** - more and more NHS staff will be involved in prescribing, administering, supplying and monitoring these biosimilar medicines and many more patients will be eligible for treatment with a biosimilar medicine.

Figure 1

Biologic	Condition	Spend in 2015/16 (£m)[a]	Sector (approximate funding split)	Estimated to be available
Infliximab	Adult inflammatory bowel disease, adult rheumatology conditions	£140	CCGs (90%); Specialised Services (10%)	Since March 2015
Etanercept	Rheumatology conditions	£150	CCGs (95%); Specialised Services (5%)	Since April 2016
Rituximab	Various including rheumatoid arthritis and cancer	£145	Specialised Services (70%); CCGs (30%)	Since April 2017
Trastuzumab	Breast cancer, gastric cancer	*£125	Specialised Services	December 2017
Adalimumab	Various including rheumatology, inflammatory bowel disease, dermatology	£255	CCGs (90%); Specialised Services (10%)	October 2018

[a] Source: Pharmex * Of which only about 20% of spend is on activity for which biosimilar is clinically appropriate

The next biologic to lose its patent in 2017 is Trastuzumab, and in 2018 Adalimumab, the highest spend drug in hospitals in the NHS, will lose its patent. **It is now important for the NHS to embed the principles of switching to the best value biological medicine into commissioning and clinical practice, if we are to realise the optimal rate and extent of savings associated with these medicines.**

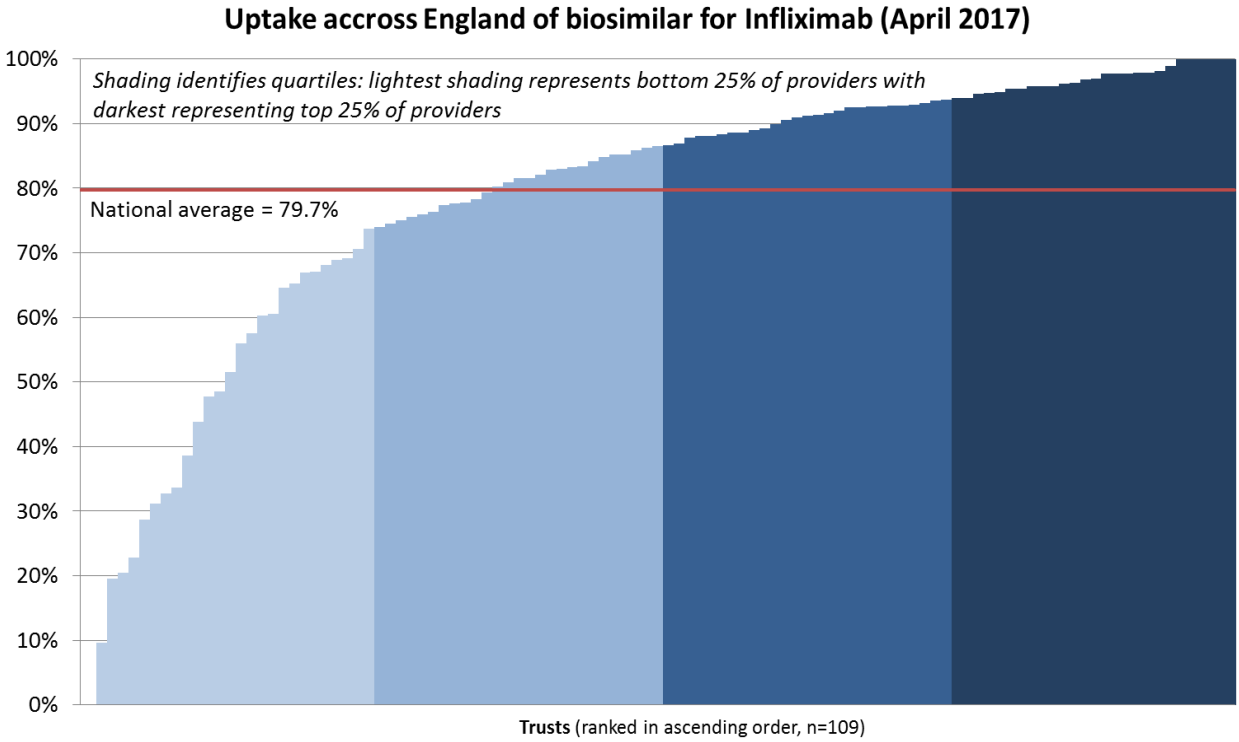
There is growing practical NHS experience that demonstrates the safety and clinical effectiveness of biosimilars and the savings generated from their introduction in clinical practice. Southampton General Hospital has saved around £80,000 per month from a switch programme to biosimilar infliximab with some of the cost savings being reinvested in improvements to patient care. The Greater Manchester region has also demonstrated that cost savings in biological medicines can be achieved by

[3] Biosimilar medicines are an alternative for a given biological medicine (the originator) and are developed to be highly similar to the originator biological medicine.

appropriately dose tapering for some patients, ensuring better earlier treatment, or by using research to identify other cost savings through clinical pathways.

However, despite the two success stories above, there is evidence of significant and unwarranted variation between local areas and regions in the use of biosimilar medicines. In January 2017, one NHS Trust in central London had an uptake of infliximab of only 25%, whilst another just 16 miles down the Thames had an uptake rate of 99%. This shows that there is significant opportunity to further benefit from biosimilar medicines if action is taken across the country and best practice is implemented. ***Figure 2*** illustrates the variation across the country for Infliximab.

Figure 2



Notes: Uptake measured as percentage of Defined Daily Doses (DDDs) for the biosimilar version
Source: NHSi derived from Rx-Info Define system which is used by ~85% of acute trusts nationally. Data is for April 2017

Check the level of biosimilar uptake in your NHS Trust: https://apps.nhsbsa.nhs.uk/MOD/AtlasTrustsMedsOp/atlas.html

Some originator manufacturers have also offered discounts, further enhancing the competitiveness of the market and potential for cost saving for the NHS. For example, we have seen the average cost per defined daily dose for Infliximab drop by 59%. As a result of biosimilar products becoming available following patent expiry of the originator, we expect this trend to continue.

In Specialised services, there is already a stated ambition of **90% of new patients being on the best value biological medicine within 3 months of product launch and 80% of existing patients within 12 months, or sooner if possible**. This should be mirrored for CCG commissioned services. The target is set, taking into account factors that may prevent all patients from switching. Delivery against this ambition will be monitored, and where the 80% figure is not achievable within a CCG geography, CCGs will need to provide a written explanation to NHS England explaining the reasons why.

4. What can patients, prescribers and providers do?

Patients, prescribers and providers all have a part to play in helping commissioners to support the uptake of biosimilar medicines.

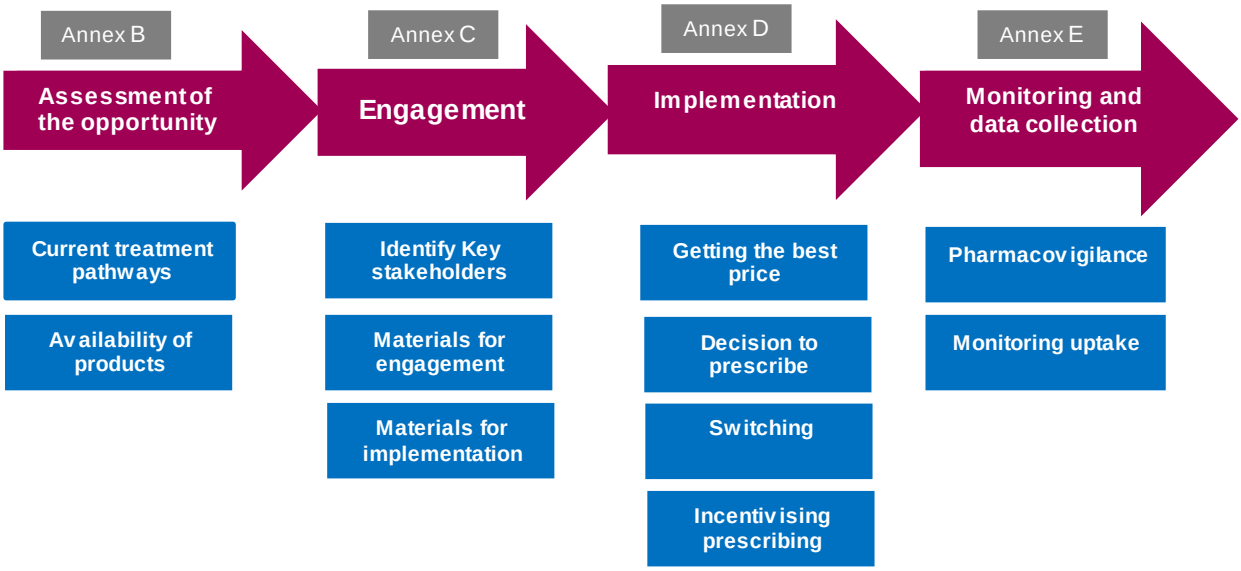
We ask patients to take a moment to understand the medicines that they are taking and to ask their GP or consultant whether a clinically suitable biosimilar exists. To support their patients in this choice, prescribers are asked to keep up to date with communications from their local CCG or provider and to know where to find the local policy on switching new and existing patients to biosimilars.

Secondary Care providers are asked to ensure that they know what they spend on biological and biosimilar medicines. With this information, we ask that providers work with their clinicians to develop a policy on how prescribers can switch their patients to biosimilars and support them in making informed choices to save valuable resources. Finally, we ask that the policy be supported by appropriate communications to ensure maximum awareness of it, by all who prescribe.

5. What can commissioners do?

Figure 3 below sets out the key stages of a commissioning framework which can be used by commissioners to help them commission biosimilar medicines. This document sets out the key principles at each stage and **Annexes B – E** give further detailed information, check lists and case studies to support decision making.

Figure 3



Commissioners should work with all relevant stakeholders and plan ahead to identify the optimum approach in their areas, so that the NHS can remain on the front foot and prepare local systems to make the most of biosimilars. Commissioners and providers are expected to familiarise themselves with date of patent expiry for originator biological medicines, and the possible launch date of individual biosimilar products. The chief pharmacists of commissioners and providers will be familiar with this information.

6. Regional coordination and support

Commissioners must work closely with providers, clinical teams and patients to quickly and consistently support the uptake of the best value biological medicines, including biosimilars.

Working in partnership with NHS Clinical Commissioners, NHS England has responded to requests for better coordination, collaboration and alignment across health economies and nationally, by joining up vital medicines optimisation activity through the establishment of four **Regional Medicines Optimisation Committees** (RMOCs) across England.

RMOCs provide advice and make recommendations on the optimal use of medicines for the benefit of patients and the NHS. They bring together decision makers and clinicians to share best practice, understand the evidence base, coordinate action and so reduce variation thereby improving outcomes and value.

RMOCs will coordinate support to local providers and commissioners in increasing their use of best value biological medicines, and ensure that plans are in place by the end of 2017.

NHS England and NHS Improvement regional and central teams will work alongside RMOCs to support the development of plans to achieve our ambition in the following ways:

- We will share data packs on the currently available biosimilars for each region, split by CCG/STP and highlighting variation from best/average, to feed into finance and performance conversations. The pack will also include data on the prescribing of Adalimumab in preparation for future biosimilars coming onto market;
- We will host regional Web-Ex's for colleagues to learn more to support local implementation;
- We will actively communicate to the system well in advance to support planning when a new biosimilar medicine enters the market;
- CSU support will be made available from September/October 2017 for the health economies who are the most significant outliers or those where the biggest unrealised opportunity for gains exists; and
- We will publish information on the best and worst performers, which aligns with NHS Improvement plans on top 10 medicines and model hospital dashboard.

7. Funding biological medicines

One key challenge is that, because of their high cost, the main biological and biosimilar medicines described above are usually funded separately by commissioners on a "pass-through payment" basis, rather than being included within HRG-based prices for different patient treatments set out within the National Tariff.

Since, in general, the contractual arrangement is simply that the commissioner meets the actual cost to the provider of such drugs, there is no direct incentive for providers to ensure best value by the adoption of the most cost-effective medicines. However,

there is a significant benefit to the wider NHS and ultimately an increased number of patients will have access to these medicines.

NHS England supports the establishment of appropriate **financial arrangements to incentivise the provider** to implement processes to maximise early adoption and prescribing; for example this may include a departmental level incentive to cover the cost of staff resource used in facilitating a switch to biosimilar medicine. However, over time and once the practice of best value prescribing has been embedded, we would expect incentives to cease.

In addition, commissioners should liaise with regional pharmacists and/or procurement specialists to review the price being paid for biosimilars. They can look to **Commercial Medicines Unit frameworks** for better value opportunities. It is important that discussions about price reflect the total cost of administering a particular medicine, using the considerations in the product considerations table included in this guidance.

More information is set out in Annex D.

8. Conclusion

We expect all CCGs and every provider to be proactively looking at the opportunities for the use of biosimilar medicines with their patients.

NHS England and NHS Improvement supports the appropriate use of biosimilar medicines which will drive greater competition and release cost savings to support the treatment of an increasing number of patients and the uptake of new and innovative medicines.

CCGs should also be working with their clinicians and prescribers to support them in working with their patients to understand and use biosimilar medicines wherever possible. Getting the principles of switching patients to the best value biological medicine embedded into commissioning and clinical practice now will lay the foundations for successful adoption of further biosimilars in the future.

Annex A – About biological medicines

- Biological medicines are derived from living cells or organisms and consist of large, highly complex molecular entities.
- A biosimilar medicine is a biological medicine which is highly similar to another biological medicine already licensed for use (referred to as an 'originator medicine' or 'reference product').
- To be licensed by the European Commission on the advice of the European Medicines Agency (EMA)[4], a biosimilar medicine must be shown not to have any clinically meaningful differences from the originator medicine in terms of quality, safety and efficacy. However, biosimilar medicines are not the same as generic medicines, which contain simpler chemical structures and whose active ingredients are identical in terms of molecular structure to their reference medicines.
- Biosimilar medicines have already been on the market and used in the UK for the past 10 years.
- Where NICE has already recommended the originator biological medicine, the same guidance will apply to the biosimilar, so biosimilars do not require a separate or additional HTA. Lower acquisition costs achieved through competition will make these important medicines even more cost effective.
- More information on biological medicines, can be found in the NHS England publication 'What is a biosimilar medicine?'

[4] http://www.ema.europa.eu/ema/index.jsp?curl=pages/regulation/general/general_content_000408.jsp

Annex B - Assessment of the opportunity

- Commissioners, working with the Regional Medicines Optimisation Committees, should plan ahead for changes in the biological medicines market. As more biosimilar medicines become available in England, prompt consideration of the current situation and range of treatment options available will support commissioners, in liaison with clinical reference groups, clinicians, providers and patients to make an informed decision about the best approach to take.
- The tables below provide a checklist of factors to consider during this assessment:

Current treatment pathways
Clinical specialties that will use biosimilar alternatives to identify: • current standard therapies / originator products • clinical stakeholders and patient representative groups • any areas for exclusion from or prioritisation for introduction • current biological medicines guidance, including cost effectiveness guidance from NICE
Current patient pathway(s) to establish likely place in therapy for new patients and, where switching may be appropriate, for existing patients
Capacity of clinical teams to implement any changes to existing pathways or implement new pathways including switching programmes
Number of patients currently using standard therapies / originator products in each clinical area to inform priorities, exclusions and timescales
Current spend on standard therapies / originator products in each therapeutic area to inform priorities, exclusions and savings calculations
Additional, transparently costed, value added services to the NHS and patients currently provided by manufacturers to be considered, including additional patient-support services
Compatibility with Medicines Optimisation principles
Key stakeholders to engage with (e.g. prescribers and associated clinicians, nurse specialists[5] and pharmacy leads, payers, patients and homecare companies)

Availability of products
Approved indications to ensure clinically comparable
Cost (to include consideration of price per dose and tariff/administration costs) to compare actual price paid
Formulation considerations, compounding, dose banding, presentation sizes available, delivery devices and stability data to compare practical aspects
All value added services offered by manufacturers (e.g. homecare, outsourced outpatients, patient support services including nursing support) to compare ease of access and costs
Comprehensively identify all costs, savings and potential re-investment opportunities
Anticipated return on investment and timeline for any expected savings to be delivered
Quality assurance assessment
Timeline and implications of new biological medicine product launches
Arrangements for supply (assessment of supply continuity)

[5] It should be noted that nurse specialists will fall into two groups - those who are independent prescribers & those who are implementing/ influencing biologic treatment decisions.

Case study 1: Assessing the opportunity in Mid Yorkshire Hospitals NHS Trust

Key learning

- Early consideration of all elements that might be affected by the switch programme helped to ensure that any potential problems could be addressed early on
- Patients had a good understanding about the benefits of saving money through biosimilars; notably use of savings to reinvest in wider services

Summary of activity

The pharmacy department at the Mid Yorkshire Hospitals NHS Trust took the lead for managed switching programmes for infliximab and etanercept. Investment scheme arrangements were agreed between commissioners and providers before any switching took place, to account for the extra resource required to deliver the switch programme. There were clinical concerns at first but as more evidence became available on biosimilars, clinicians were reassured about their use.

Early consideration of all elements of the procurement, prescribing, dispensing and administration of the medicines was important to ensure that the switch programmes were successful. Key areas that were considered included patient engagement and education (including written patient information leaflets), accelerated infusions, and the role of homecare companies. An early potential issue concerning the capacity of external aseptic compounding companies was identified through this process, resulting in the switch programme delaying using one of the infliximab biosimilars until supply concerns were addressed.

Use of the Medicines Information Patient Helpline was a good way to facilitate patient education and engagement, and assuage patient concerns about the switch. Splitting patients into manageable groups to go through the switch programme ensured that the bureaucratic workload for prescribers and the pharmacy homecare services team was manageable. Around 85% of patients on infliximab and etanercept switched to a biosimilar.

Annex C - Engagement through the commissioning process

Identify Key Stakeholders

- Thorough engagement with all key stakeholders will help to identify any opportunities and potential challenges to the commissioning approach and how these might be addressed.
- Senior clinical leadership (e.g. the Chief Pharmacist and the relevant Clinical Director) should be identified early on.
- Early and ongoing engagement with clinicians during the commissioning process is essential given the specific considerations related to biological medicines.
- In particular, the decision to prescribe a biological medicine for an individual patient, whether an originator or biosimilar medicine, rests with the responsible clinician in consultation with the patient.
- Departmental planning associated with appropriate switching processes should also be given clear consideration, in terms of both time, and associated financial and service impact. The most successful approach is likely to be where the hospital department(s) impacted by the opportunity are allowed to reinvest some of the savings into additional clinical capacity.
- Chief pharmacists and finance directors should also be involved in any discussions at an early stage.

Case study 2: Collaborative working in South East London CCG

Summary of activity
In 2015/16, clinical teams at Guy's and St Thomas' NHS Foundation Trust (GSTFT) and its host CCG (NHS Lambeth) commenced discussion on the introduction of biosimilars. Close collaboration and dialogue from the start of the process meant that the commissioning decisions for rheumatology, gastroenterology and dermatology reflected clinical concerns and anticipated resource implications to support effective planning.

In instances where a switch programme was agreed, commissioners and clinicians worked together to support a pathway redesign that positioned biosimilars as the preferred first line treatment. Additionally, this way of working enabled a timely agreement on how to share financial savings with local CCGs. Clinicians' concerns regarding the additional time required to support a switch, were accounted for through the inclusion of a specialist clinical pharmacist in the business case. By constructing a pharmacist-led switch process, front line clinical staff were able to focus on routine service delivery and no patient experienced a missed dose as the result of the changeover.

- Commissioner engagement with patient representatives should be encouraged during the commissioning process, perhaps through national patient organisations or local patient panels. Where a switch programme is planned, commissioners should support any patient engagement undertaken by providers, potentially through discussions with Clinical Reference Groups for specialised commissioning.

Case study 3: Patient Engagement in North Bristol NHS Trust

Key learning

- A multifaceted educational approach was a helpful tool for engaging with patients regarding the proposed switch to their medication, as patients will not necessarily take on board information provided through leaflets. Additional consultations with a specialist pharmacist played an important role in ensuring patients had sufficient information to participate in the shared decision making process recommended for biological medicines.

Summary of activity

In July 2015, North Bristol NHS Trust agreed a one year investment scheme between the local commissioners and the trust for all patients newly started or switched onto a biosimilar. Some of the projected savings were used to fund a specialist pharmacist post to aid the switch process and further support patients.

To support this switch and ensure the clinical team had sufficient information to support individual treatment decisions, North Bristol NHS Trust circulated practical prescribing and dispensing guidance to clinicians and pharmacy staff. The trust also provided educational sessions to the medical day case unit and nursing staff to ensure they could support patients who might have questions regarding the switch, given the specific considerations related to biological medicines.

In line with NHS England's principle of shared decision making, a number of measures were also taken to inform patients of the proposed switch. A Patient Information Leaflet (PIL) was designed and posted to inflammatory bowel disease (IBD) patients and patients were scheduled for a consultation with a specialist pharmacist ahead of their first switched dose.

Through the shared decision making process, one patient did not want to switch and so remained on the originator product. 64 others were switched over a two-month period. Of the 32 patients who completed the patient experience questionnaire following the switch, 97% said they were satisfied, or very satisfied with the process. However 16% did not recall receiving the patient information letter, underscoring the need for a multifaceted educational approach to patient engagement.

Materials for engagement and implementation

- Page 25 of this document provides a list of links to existing information sources. Some of the more pertinent links are provided below:
    - European Commission – What You Need to Know About Biosimilar Medicinal Products - A Consensus Information Document - This is a very thorough summary of the key issues with useful Q&A sections for patients and health professionals.
    - PrescQIPP- Resources are available that cover some of the general principles and issues relating to all biosimilars.

- Commissioners, supported by Regional Medicines Optimisation Committees, may wish to lead on the collaborative sourcing and development of a number of outputs to support engagement and implementation throughout the process:

Outputs to support engagement
Background information for clinicians: • European Commission/ EMA licensing [currently the EC/EMA with future changes in line with Brexit] • European public assessment reports (EPAR) • Manufacturing information • Risk assessment and control measures • Guidance from professional bodies and patient groups • NICE adoption tools, Key therapeutic topics (KTT) and case studies • Patient information
Outputs to support implementation
Proposal for formal agreement at commissioner and provider committees to include: • Timetable for introduction of new treatment • Detail of any switch programme, including available evidence to support switch by INN • Cost savings and re-investment/ service development opportunities • Appropriate enablers to recognise the additional work involved in the development of new pathways/switching programs • Communication strategy for patients in the context of shared decision making • Data collection and reporting requirements (locally) • Arrangements for monitoring patient outcomes
Review date / lesson learned session

Annex D – Implementation

Getting the Best Price

- Biological medicines are contracted for by the Commercial Medicines Unit (CMU) on behalf of the NHS in England under the Branded Clinical Category Tranche tendering process and are grouped according to potential for therapeutic substitution.
- The tenders are coordinated nationally and resultant frameworks delivered at a four region level model (North, South, London, Midlands and East) that complies with all current policy legislation and guidance.
- Tranche tenders are separated into two groups of clinical categories which are generally two year frameworks with a one year firm pricing period. One tranche A and one tranche B framework is awarded every six months.
- Biological medicines, including biosimilar medicines, are prescribed by brand and allocated individual National Product Codes (NPC) codes which include the brand name. They are included in the branded clinical category Tranche tenders most appropriate to their chemical structure and/or therapeutic indications. Each brand name is considered as a separate lot in the tender award criteria.
- The exact timing of the inclusion of new biosimilars into the contracting process will be determined by prior knowledge of the date of launch and the positioning of the launch date in the two year contract cycle for the four regions. Transition branded tenders, for differing durations of time, may be used to place new biosimilar products into the normal two year tranche contracting cycle.
- The contracting authority advised by horizon scanning and market intelligence will determine how and when to tender for individual biosimilars.
- The aim of the process is to maximise purchasing power in both the short and long term and to use the emerging market to the best advantage of the NHS, while maintaining a competitive and sustainable market.
- To expedite timely availability of new biosimilars, interim arrangements may, at the discretion of the regions, be put in place until a CMU award can be made.
- As a consequence of the cyclic nature of the process and likely inclusion of all relevant biologics, including biosimilars, in the appropriate Tranche Tender, the comparative cost effective analysis of individual products may vary by regional award and needs to be scrutinised in the commissioning and prescribing decision making process.

Decision to prescribe

- In line with Medicines and Healthcare Products Regulatory Agency (MHRA) guidelines, all biological medicines, including biosimilar medicines, must be prescribed by brand name. This ensures that automatic substitution of a biosimilar product does not occur when the medicine is dispensed by the pharmacist and supports ongoing pharmacovigilance of individual products.
- Treatment decisions should be made first on the basis of clinical judgement for individual patients and secondly on the basis of the overall value proposition offered by individual medicines. If more than one treatment is suitable, the best value biological medicine, including biosimilars, should be chosen (taking into

account transparently costed device training, any patient support programs offered by manufacturers, administration costs, dosage and price per dose.).

- If treatment decisions are not made following the above principles, the reasons why should be documented and made available to commissioners if required.

Case study 4: Supporting medicines reviews and flexible prescribing pathways in Greater Manchester[6]

Key learnings

- Close relationships between providers, pharmacists and commissioners developed through regional pathways facilitated trust which supported clinicians in prescribing the appropriate treatment for their patients.
- When supported by close collection of real world data and evidence, medicines reviews for appropriate patients can help improve patient treatment, while securing costs savings.
- Additional options may be considered to achieve cost savings in biological medicines. Dose tapering for appropriate patients; ensuring better earlier treatment; using research to identify other cost savings through pathways; and the impact of competition on the price of originators should all be considered when exploring opportunities to identify savings.

Summary of activity

A biological pathway review was undertaken across Greater Manchester in rheumatology. The pathway aimed to provide guidance on the biologic medicines to be used at each stage of the disease, based on the clinical presentation of a patient. This is focused heavily on stratifying patients according to co-morbidity and infection risk. It was agreed that the system would encourage clinicians to use the best value medicines available, while providing flexibility for prescriber and patient choice. It also reduced the number of IFRs received by CCGs for variation from NICE sequencing recommendations. To implement this effectively, a virtual biologics clinic was set up to review prescribing decisions and collect real-world data at the Manchester Royal Infirmary.

A weekly, one hour meeting of the consultant rheumatologist, rheumatology specialist nurse, research nurse and specialist pharmacist delivers the virtual biologics clinic. Every patient starting a biologic for any condition is reviewed against a prescribing checklist to ensure compliance against the pathway. Compliance with the GMMMG pathway increased from 37% to 97% after the introduction of the clinic. Implementation of the prescribing pathway and increased recruitment into trials resulted in cost-savings of £113k in the first 6 months; biologics prescribing changes, and promotion of cheapest drug use, gave rise to savings of £23k to commissioners over 6 months in one centre. Additionally, £90k additional revenue was generated from recruitment into clinical trials of investigational medicinal products.

Having a regional pathway in place meant that the relationships were in place across CCGs, commissioning support units (CSUs) and providers to establish a shared regional position on biosimilars in time for the launch of the first biosimilar in rheumatology. It also enabled a robust local data collection system.

[6] Greater Manchester Medicines Management Group. Guidance for the prescribing of high cost biosimilar biological medicines. July 2016.

Switching between biological medicines, including biosimilar medicines

- Biosimilar medicines are approved by the European Commission on the advice of the European Medicines Agency (EMA) as the result of a regulatory process that assesses equivalent quality, safety and efficacy with the originator medicine.
- There is growing practical NHS and international experience that demonstrates the safety and efficacy of biosimilars in clinical practice.
- There is increasing clinical evidence that switching from an originator medicine to a biosimilar medicine does not impact patient outcomes, but there is currently limited clinical evidence to support switching between one biosimilar and another biosimilar medicine.
- Any decision to conduct such a switch should be done with the approval of a physician and in consultation with patients. As clinical data emerges, it will inform commissioning and prescribing practice.
- At the individual level, switching from one biological medicine to another (originator to biosimilar; biosimilar to biosimilar; or biosimilar to originator) should be managed at the discretion of the individual prescriber in partnership with the patient, with appropriate monitoring in place.
- Following discussions between the patient and the clinician, where it is agreed there are no mitigating circumstances which mean that switching would not be appropriate, Trusts should aim for adoption of best value biological products, including biosimilars, in 80% of applicable existing patients within one year of being made available (except if standard treatment course is < 6 months). The priority for NHS England is to ensure optimal value and outcomes from all medicines to enable investment in future developments, including new and innovative drugs.
- In the event that a switch programme is considered the best approach, commissioners should work with appropriate stakeholders, including clinicians, nurses, pharmacists, homecare teams, patient representatives and biological or biosimilar medicine manufacturers, to develop a local project management approach for implementation, ensuring account is taken of resources and time required, as well as adherence with national policy and guidance.
- There should be no automatic substitution of biological medicines, including biosimilars, at the point of dispensing. Automatic substitution is not appropriate for biological medicines, including biosimilar medicines, and is not permitted at this time.
- Any changes should be communicated to all patients, clinicians, nurses, pharmacists and home care teams (where applicable), in advance of the changes occurring.

Case study 5: Pharmacist support in Cambridge and Peterborough CCG

Key learning

- By appointing a biologics pharmacist to project manage and implement the switch programme, the CCG was able to support the safe and effective use of biosimilars, whilst also releasing savings for the local health economy.

Summary of activity

When the decision was made in Cambridge and Peterborough CCG to introduce biosimilar medicines for new patients and encourage switching in existing patients, it was acknowledged that this would require time and resource. To meet this need, a CCG-funded biologics pharmacist was employed to manage the switch programme and support implementation and monitoring of biosimilar use in new patients, across rheumatology, gastroenterology and dermatology.

The biologics pharmacist counselled patients and obtained agreement for the switch from existing patients, while also supporting the follow-up process. By helping to reassure patients about concerns with regard to safety and supporting the clinical teams, the biologics pharmacist supported the switch of 95% of existing patients to a biosimilar. Given the success of the biologics pharmacist, funding for a biologics technician has been agreed to allow other clinical initiatives to be developed.

Incentivising Prescribing

- Strategies for cost effective prescribing, referred to as incentive schemes, can be effective mechanisms for accelerating a change in prescribing practice and recognising the resource associated with making a change for this type of complex medicine.
- In the event of a national (specialised commissioning) or local (clinical commissioning) decision to switch patients from one biological medicine to another, including biosimilar medicines, commissioners and other stakeholders could consider the potential for a strategy for cost effective prescribing whilst bearing in mind that the decision to prescribe a biological medicine for an individual patient rests with the responsible clinician in consultation with the patient.
- A strategy for cost effective prescribing should specify the agreed level of incentive, for example based on the work undertaken, and when this applies. Information on current NHS procurement arrangements, price and preferred medicines available should be transparent and readily available to prescribers and commissioners,[i] while ensuring prices remain confidential within the NHS.
- Medicines should be charged at procurement price and incentive payments must be charged separately.

Case study 6: Incentive scheme support in Mid Essex CCG

Key learning

- Implementing a flexible incentive scheme played an important role in enabling change in prescribing practice as it allowed up-front investment in a biologics pharmacist to oversee the switching programme.
- Commissioners were able to establish the most effective approach for their area by listening and responding to the concerns of the clinical teams and directing potential savings to support clinical efforts.

Summary of activity

In 2015/2016, Mid Essex CCG commissioners started initial discussions with acute physicians regarding the patent expiry of originator infliximab. Clinicians were broadly supportive of the principles of cost effective prescribing, but were concerned that phase three clinical trials had not been conducted across all licensed indications and that they would not be able to provide the time needed to fully consult with patients to alleviate their concerns and engage their approval for a switch.

Although a fixed drug tariff price (for newly started patients) and fixed drug tariff price plus incentive scheme (for patients switched to a biosimilar) was agreed in March 2015, biosimilar infliximab was only used in new patients for the first six months. When this was discussed with providers, it was noted that they did not have staffing capacity to consult fully with the patients they intended to switch.

To resolve this concern, Mid Essex CCG offered up-front funding of £42K to support recruitment of a part-time 'biologics pharmacist' to enable the switching of patients. The costs of this post would be subsequently recouped through the acute trusts' incentive scheme until paid off, after which any additional gain would be accumulated by the trust.

By restructuring the incentive scheme agreement to provide support to the clinical teams upfront, rather than retrospectively, Mid Essex CCG was able to respond to the concerns of the clinicians and ensure resources were in place to fully engage with patients.

Specialised commissioning CQUINs

- NHS England has developed a CQUIN[7] to support the faster uptake of best value medicines in specialised commissioning, with a particular focus on best value generics, biological medicines, including biosimilar medicines, and CMU frameworks as they become available.
- With regard to biological medicines, including biosimilar medicines, the 2017/2019 CQUIN payment trigger relates to Trusts being able to demonstrate:
    - Adoption of best value biological products, including biosimilars, in 90% of new patients within one quarter of guidance being made available.
    - Adoption of best value biological products, including biosimilars, in 80% of applicable existing patients within one year of being made available (except if standard treatment course is < 6 months)
- The applicability of existing patients should be managed at the discretion of the individual prescriber in partnership with the patient.

[7] NHS England: Revised Specialised Commissioning CQUINs 2017/18 – 2018/19, September 2016

Annex E - Monitoring and data collection requirements

Pharmacovigilance

- EU pharmacovigilance legislation mandates that any medicine with a new active substance, and all biological medicines, including biosimilar medicines, approved after 1 January 2011, are subject to additional monitoring for safety.
- In accordance with European pharmacovigilance legislation, the MHRA[8] requests those reporting a suspected adverse drug reaction (ADR) to a biological medicine to provide the brand name and specific batch number on any ADR report. It is necessary to attribute any safety concerns to the correct product, manufacturer and batch to ensure a root-cause determination, without which patients could be at risk. Reports of suspected ADRs should be submitted to the MHRA's Yellow Card Scheme[9].
- Commissioners and clinicians might find it helpful to meet to review and discuss data that has been collected.

Monitoring Uptake

Commissioners and clinicians should consider which national and local databases and registries may be used and provide guidance on requirements for appropriate monitoring. If a new biological medicine, including a biosimilar medicine, is introduced, baseline data and agreed indicators should be collected during and after its introduction. Appropriate monitoring might include:

- Consideration of patient experience on their medicine (for both naïve patients and those who have been switched from another biological medicine)
- Patient outcomes: PROMS
- Adverse drug reactions
- Financial benefit
- Challenges to implementation
- Documentation of management decisions

[8] MHRA. Biosimilar products. February 2008.
[9] https://yellowcard.mhra.gov.uk/

Case study 7: Monitoring and data collection in Southampton

Key learning

- Gathering information from patients, as well as clinical results before and after the switch was considered an important means of monitoring success.
- Robust data collection allowed the team to monitor any changes and also provided a longitudinal dataset that would allow clinicians and commissioners to review the impact of any switching programme.

Summary of activity

Clinicians at University Hospital Southampton NHS Foundation Trust identified a potential cost-saving opportunity with the introduction of infliximab biosimilars. The consultant clinical lead for the inflammatory bowel disease (IBD) service suggested a managed switching programme for the 150 IBD patients on Remicade and arranged an investment scheme agreement with the two local CCGs to support the switch. An extra IBD nurse specialist, additional administration support and additional pharmacy support were made available to support the switching programme.

Given the uncertain data relating to biosimilar use for IBD at the time, data monitoring was considered essential. At two infusions before the planned switch date, all patients were asked to complete a questionnaire covering patient-recorded outcome measures for IBD control, disease activity scoring and side effects. Drug trough levels and antidrug antibodies were also measured before and after the switch to show any changes between the biological originator and biosimilar. Ongoing data collection allowed the team to monitor for any problems and also provides an ongoing resource for long-term assessment of the switching programme and the use of biosimilars in IBD.

The existing indicator of percentage biosimilar usage by chemical entity will continue to be reported through the NHS Improvement Model Hospital and Medicines Optimisation dashboard utilising the Rx-Info Define benchmarking system, which covers 85% of acute trusts across the English NHS.

Further information

- NHS England: What is a biosimilar medicine? September 2015
- European Medicines Agency (EMA). Questions and Answers: Biosimilar medicines
- NICE position statement on evaluating biosimilar medicines. January 2015
- NICE advice [KTT15]. Biosimilar medicines. February 2016. NICE advice KTT15 Biosimilars
- Drug Safety Update: Biosimilar products. February 2008
- Drug Safety Update: Reporting suspected adverse drug reactions to vaccines and biological medicines. November 2012
- NICE TA329. Tools and resources. Health technology adoption programme. February 2015.
- GaBI Journal - The Generics and Biosimilars Initiative Journal provides a wide range of articles on all things biosimilar.
- EMA – Medicines Under Evaluation - The European Medicines Agency oversees the regulation of medicines within the EU. This link displays new products, including biosimilars, currently being reviewed. Biosimilars can take between 12-18 months to complete the EMA process.
- EMA – Scientific Guidelines for Biosimilar Medicines - All the relevant guidelines that relate to biosimilar regulation are available here.
- EGA Handbook - This handbook aims to provide updated information on the current progress of biosimilar medicines in the European Union.
- ABPI Position on Biologic Medicines, including biosimilar medicines - This paper sets out the ABPI position on biologic medicines, including biosimilar medicines.
- Biosimilar Medicines: A National Prescribing Framework - Healthcare Improvement Scotland has led the development of a national prescribing framework to support the safe, effective and consistent use of biosimilar medicines in NHS Scotland.
- European Commission – What You Need to Know About Biosimilar Medicinal Products - A Consensus Information Document - This is a very thorough summary of the key issues with useful Q&A sections for patients and health professionals.
- Biosimilars: The Science of Extrapolation - This is an excellent summary of the most significant issue relating to biosimilars.
- Biosimilars: What Clinicians Should Know - Clinician education is central to implementation of biosimilars. This review summarises all the key issues.
- The What is a Biosimilar Medicine? guide has been produced by NHS England to inform the NHS regarding biosimilars. The document introduces the concept of biosimilars and discusses their potential place in therapy. Most significantly there are statements regarding switching, substation and interchangeability of biosimilars
- Regional Medicines Optimisation Committee Operating Model - sets out the focus and purpose of the Committees and provides information on the underpinning principles and functions of how the RMOCs will operate
- Cancer Vanguards- provides an unprecedented opportunity to transform and create new models of cancer care that can be reproduced nationally
- PrescQIPP- Resources are available that cover some of the general principles and issues relating to all biosimilars.
- '**Biosimilars in the EU. Information guide for healthcare professionals**' (Prepared by EMA and EC) Link:http://ec.europa.eu/DocsRoom/documents/22924
- Updated IMS report (2017) for '**The impact of biosimilar competition in Europe**' Link: http://ec.europa.eu/DocsRoom/documents/23102