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The growth in systemic anti-cancer treatment (SACT) and how to manage the cost increase with progressive strategies

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The dynamics of the cancer environment

The increasing and ageing population, increased investment from pharma companies and longer survival rates

An ageing population and increased cancer diagnosis is a focus for pharmaceutical science

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- The pharmaceutical cancer market is an area of focus for most big pharmaceutical manufacturers
- According to a 2017 report on the Biopharmaceutical pipeline there are 5,789 cancer products at different stages of development.
- Demand for cancer treatment is set to increase as the population of the United Kingdom becomes older.
- According to recent statistics from Cancer Research UK, 1 in 2 people in the UK born after 1960 will be diagnosed with some form of cancer during their lifetime.
- People are surviving cancer, and according to MacMillan there are currently 2.5 million people living with cancer in the UK, rising to 4 million by 2030.
- All these statistics create a picture of huge demand and burden on a system that is struggling with the conundrum of how to continue to afford the significant treatment advancements now and in the future.

Since the 1990's oncology drug development has been growing

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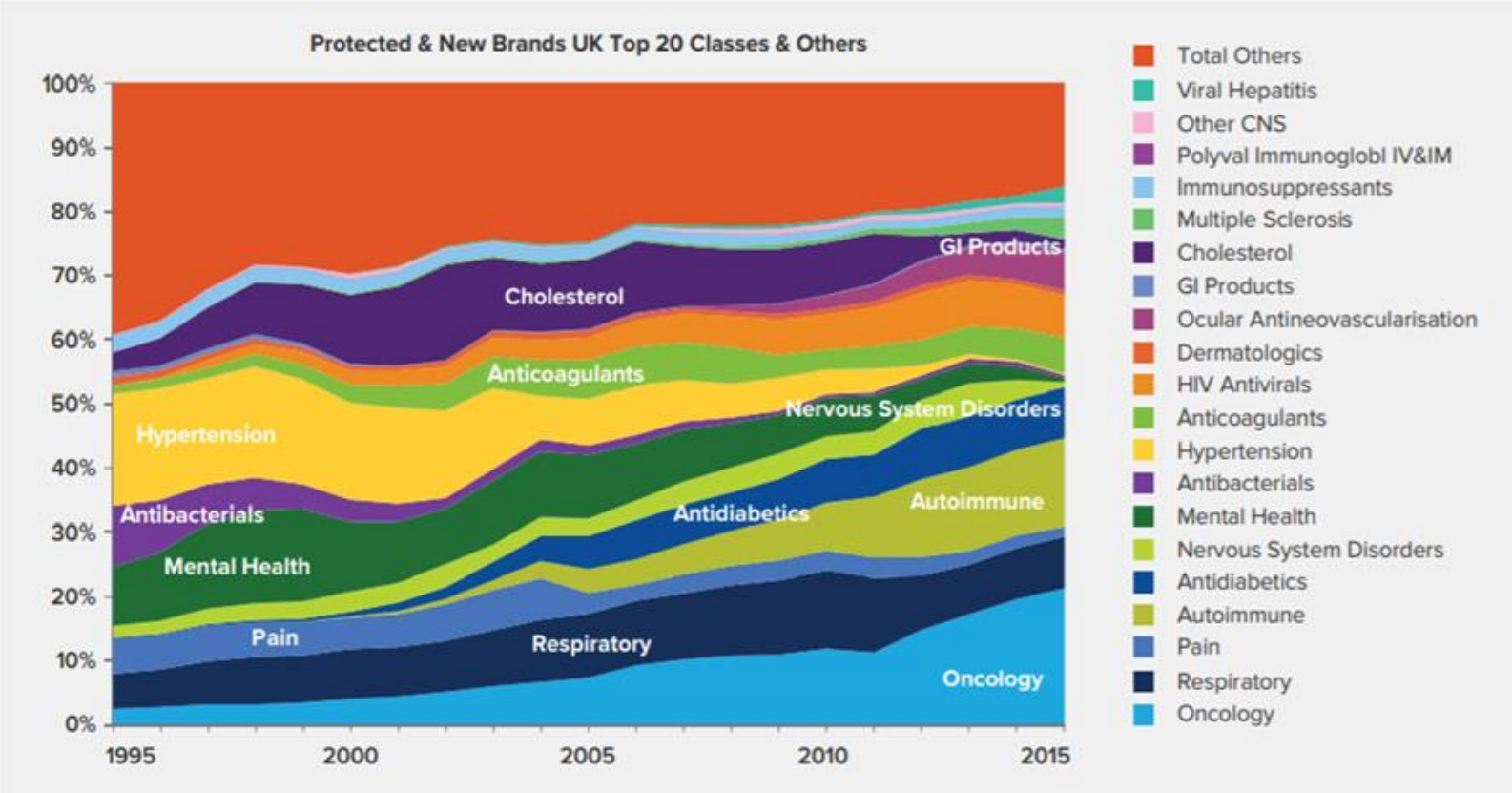

- The make-up of drug use in the UK is changing significantly
- Cancer is now the most prolific area of new brand development.
- Between 1995 and 2015, the average cost per life-year gained (LYG) from agents used in haematologic malignancies rose to $200,000 from $50,000

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6476465/

https://www.iqvia.com/-/media/iqvia/pdfs/institute-reports/understanding-the-dynamics-of-drug-expenditure.pdf?_=1565268717555

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Real world evidence from Aviva shows the demand on Insurers

Aviva reported increased spend on Oncology products

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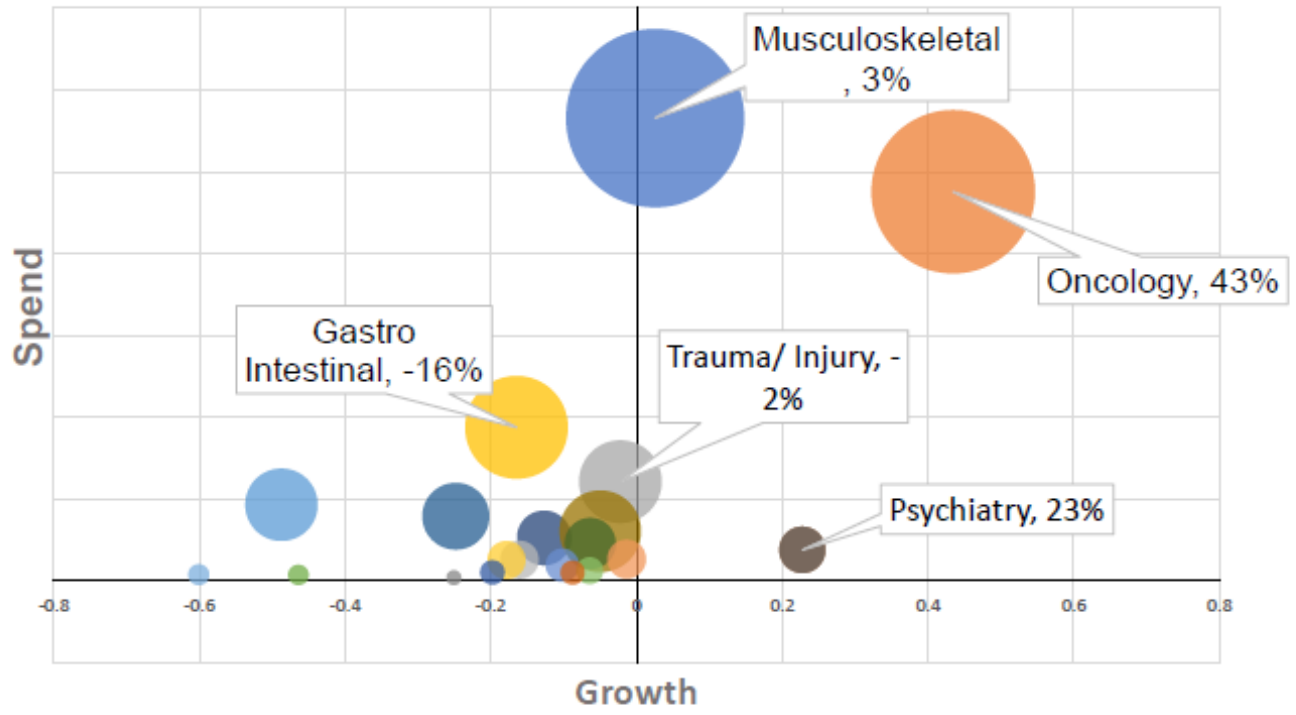
LaingBuisson Private Acute Healthcare Conference 2018

Oncology The funder's view

Condition Growth and Spend 2012-2017



Oncology cases are 4% of total claims volume

Oncology spend is now 25% of total spend

Control of non oncology claims very good

AVIVA

Aviva showed a huge growth in spend on SACT

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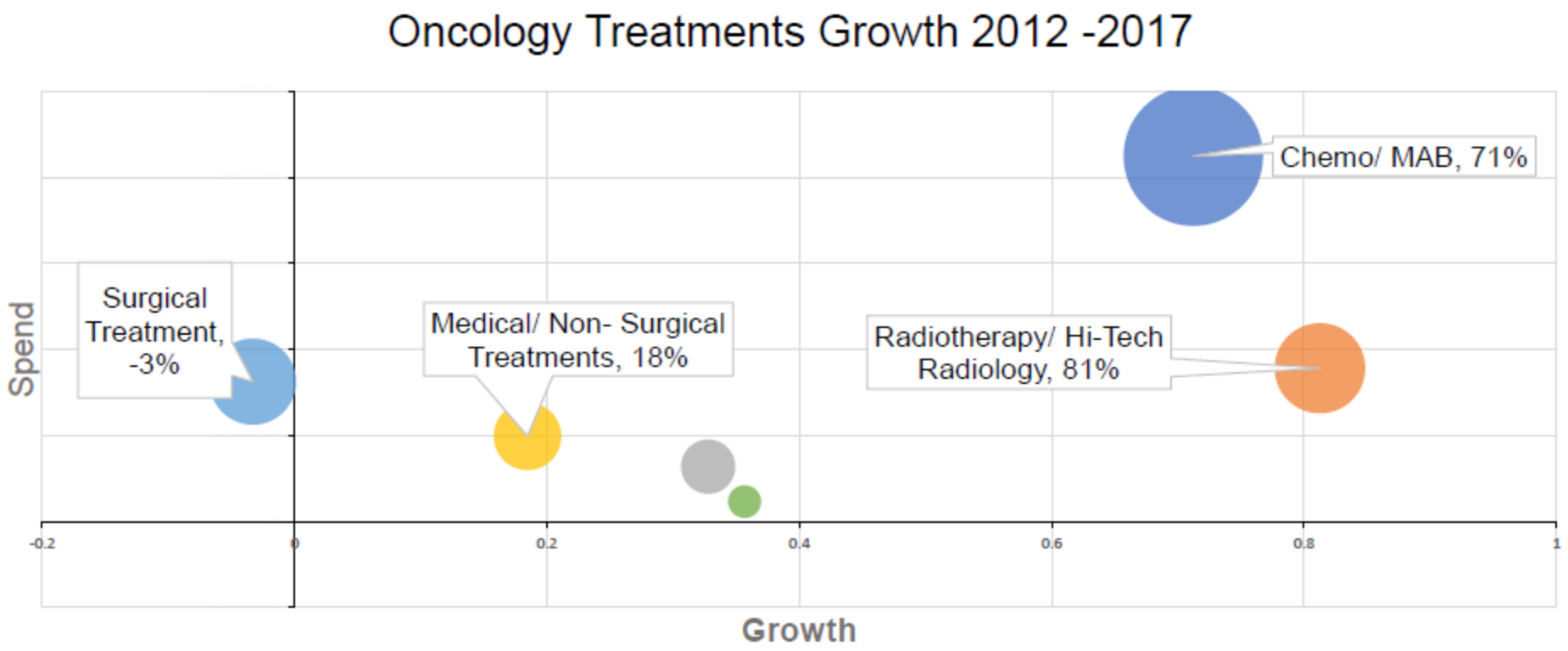
LaingBuisson Private Acute Healthcare Conference 2018

Oncology The funder's view



Growth driven by new drugs and radiotherapy

AVIVA

The Perfect Storm

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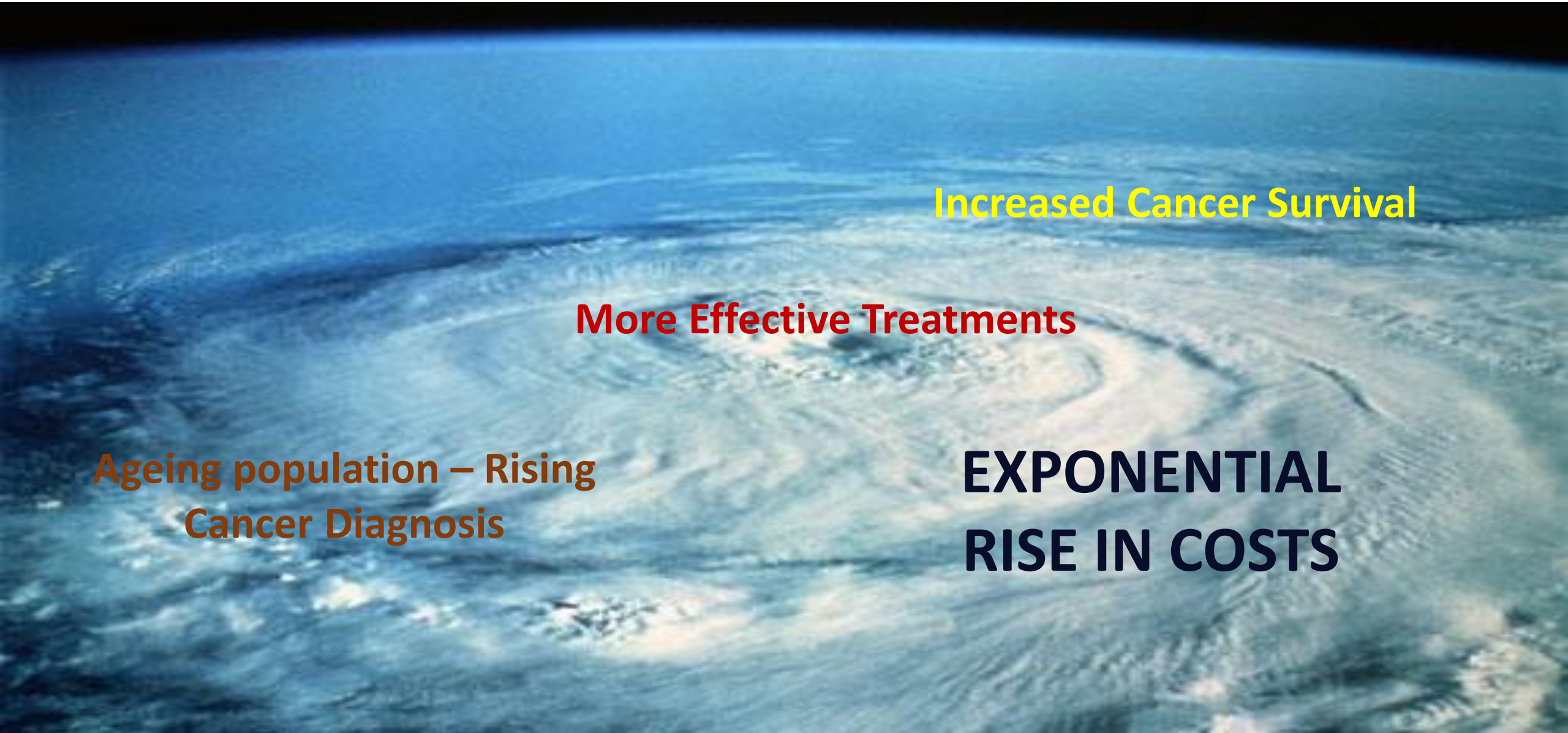

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Strategic Choices for the Private Medical Insurers

What strategies can be used to tackle these rising costs?

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Restrictive / limiting strategies

Limit	**Limit the scope of drugs that are covered**
Limit	**Limit the timeframe in which certain drugs can be prescribed**
Exclude	**Exclude cancer in the standard cover and make it an optional extra**
Cap	**Cap the annual cost of cancer claims**
Incentivize	**Incentivize treatment to be carried out in the public healthcare system**

Bold enabling strategies, playing on the strength that providing comprehensive cancer cover brings

Negotiate	Carefully negotiated contracts with a determination to pull away from 'BNF-plus' pricing mark ups.
Audit	Knowledgeable and regular review of cancer drug invoices
Protocol	Ensure there is a prescription protocol in place that enforces use of Biosimilars/Generics
Generics	Generics drugs, where available, must be included in the prescribing policy
Biosimilars	Have a clear line of site for new biosimilars coming to market
Homecare	Utilise homecare providers when possible for oral anti-cancer therapy

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Biosimilars and their potential usage in cancer therapy

Regulation is vital and the adoption of Biosimilars can play a major part in cancer management

What is classified as a biosimilar?

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- **Biosimilars are** biologic agents that are highly similar but not identical to approved reference biologic agents. Regulatory approval of these agents requires the absence of meaningful differences in efficacy, safety, and purity compared with reference agents.

Regulation of the biosimilar market has to be rigorous

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- The EU approved the first biosimilar in 2006.
- The EU has pioneered the regulation of biosimilar medicines by establishing a **solid framework** for their approval and by shaping biosimilar development globally.
- The evidence acquired over ten years of clinical experience shows that biosimilars approved through EMA can be used **as safely and effectively** in all their approved indications as other biological medicines.

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Implementing a switch to biosimilars could save insurers a significant sum of money

- The list price of Biosimilars is almost always **10% cheaper** than the originator brands, but the discount in the market are more significant.
- However, Biosimilars must be prescribed by their brand name.

Biosimilar medicine is of increasing importance in cancer treatment

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- Biosimilar medicines have been used in the NHS for many years as treatments for growth hormone replacement, neutropenia and anaemia related to chronic renal failure or cancer.
- Further biosimilar medicines are in development or under review for approval as originator biological medicines come off patent.
- The key biosimilars available for the treatment of cancer are listed alongside

Originator Brand	Generic Name	Biosimilar Name
Herceptin	Trastuzumab	Kanjinti Ontruzant Trazimera
Mabthera	Rituximab	Rixathon Truxima
Neupogen	Filgrastim	Accofil Nivestim Zarzio
Neulasta	Pegfilgrastim	Pelgraz Pelmeg Ziextenzo

The NHS is making a wholesale switch to Biosimilars where possible in order to drive financial savings

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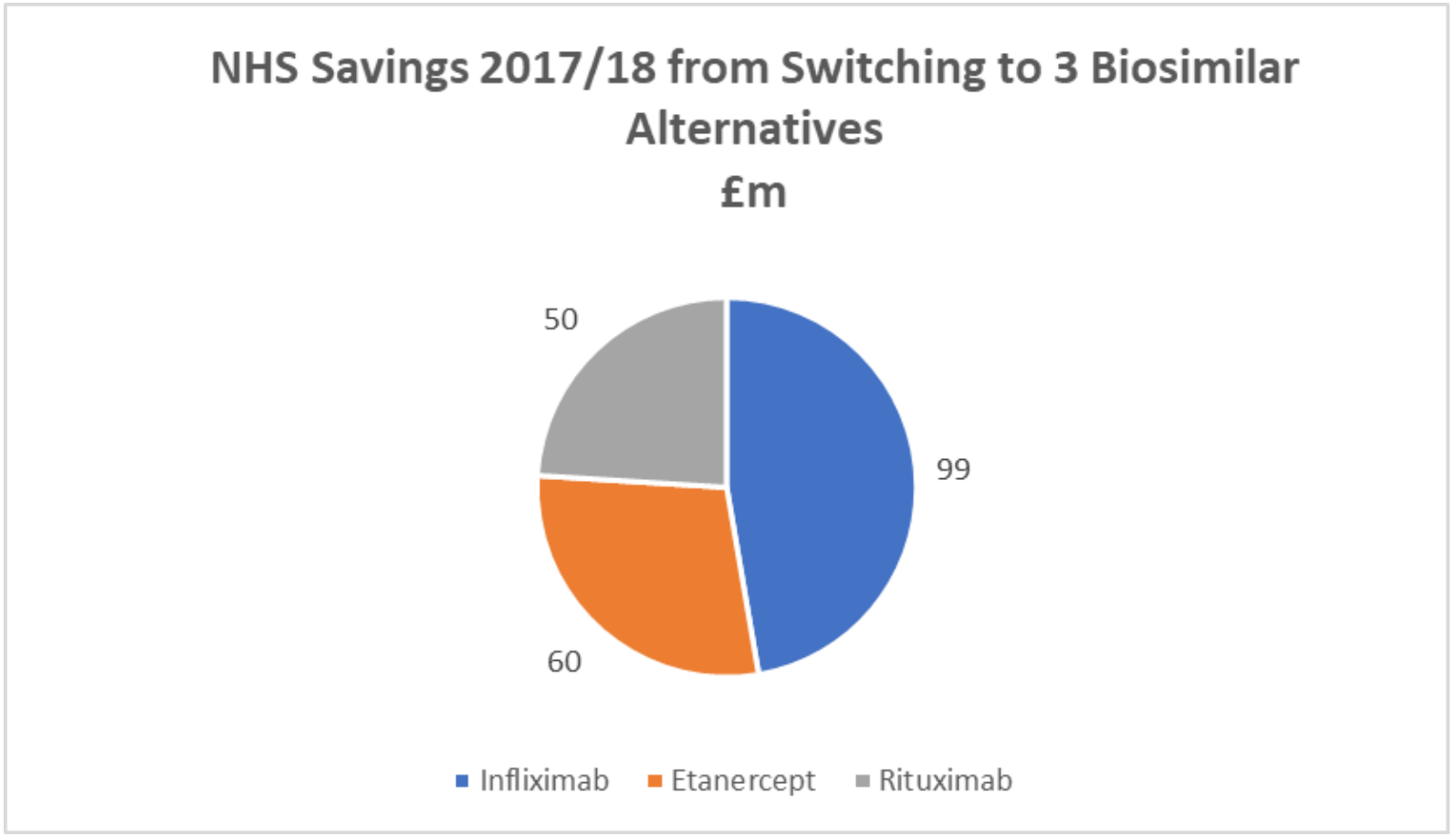
- NHS saved £210 million in 2017/18 by switching to the Biosimilar alternatives for just 3 drugs
- One of these drugs is a Cancer treatment (Rituximab)
- The NHS is also instigating a switch to Trastuzumab biosimilar to acquire a further £100m savings

- Overall the savings made by the NHS by switching to Biosimilar alternatives are nearing half a billion pounds.



Bevacizumab biosimilar development is big business

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- **Roche's Bevacizumab (Avastin) came off US patent in 2019 and its EU patent runs to 2022.**
- Worldwide sales are at **$7.2bn 2019**
- There are **20 biosimilar alternatives** for Bevacizumab either developed or in the pipeline
- **Amgen is ready** with its biosimilar well in advance of the patent expiry on Avastin, putting the biotech giant in a good position to be first on the market. In fact, the company has already received marketing approval for its bevacizumab biosimilar, Mvasi (ABP 215), from both the FDA and the EMA
- However a **legal dispute** has prevent the adoption of a biosimilar to date

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Generics drugs are important in controlling the cost of cancer treatment

Generic drugs may not always be prescribed but education of prescribers and discussion can make a big difference to cost control

Definition of a generic drug

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- A **generic drug** is a **medication** created to be the same as an existing approved brand-name **drug** in dosage form, safety, strength, route of administration, quality, and performance characteristics. **Generic medicines** work the same as brand-name **medicines.**

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Irinotecan Generic vs Branded

Pack Size	Branded Irinotecan Price*	Irinotecan Non Proprietary Price**
100mg/5ml	£48.00	£130.00
40mg/2ml	£15.00	£53.00
300mg/15ml	£110.00	£390.00

* Campto
**BNF Lowest Non-Proprietary Price

- Dose – Colorectal Cancer all 75mg/m^2
- Average 1.7m^2 Patient = 595mg every 3 weeks for 6 cycles
- **BNF Generic Price - £1,308.99**
- **BNF Branded Price - £4,641.00**
- **Difference - £3,332.01 (6 Cycles)**

NB – Market Prices are almost always less than BNF prices

The adoption of Generic alternatives

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- Most drugs in the UK are prescribed using their generic name
- Branded drugs are used where there is no other option or there is a clinical reason (e.g. presentation)
- Insurers should be able to instigate a switch to generic treatments through negotiation with their providers.

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Pending generic SACT market

Staying informed is a key to developing strategies which lead to savings

Patent expiries could lead to generic alternative and a significant opportunity to reduce the cost of cancer care

Generic Name	Brand Name	Marketing Company	Approximate DOPE
Axitinib	Inlyta	Pfizer	Jun-20
Dasatinib	Sprycel	BMS	Dec-20
Sunitinib	Sutent	Pfizer	Aug-21
Fulvestrant	Faslodex	AZ	Jan-21
Lapatinib	Tyverb	GSK	Nov-21
Pozopanib	Votrient	Novartis	Dec-21
Abiraterone	Zytiga	Janssen	Sep-22

The future size of the prize is huge

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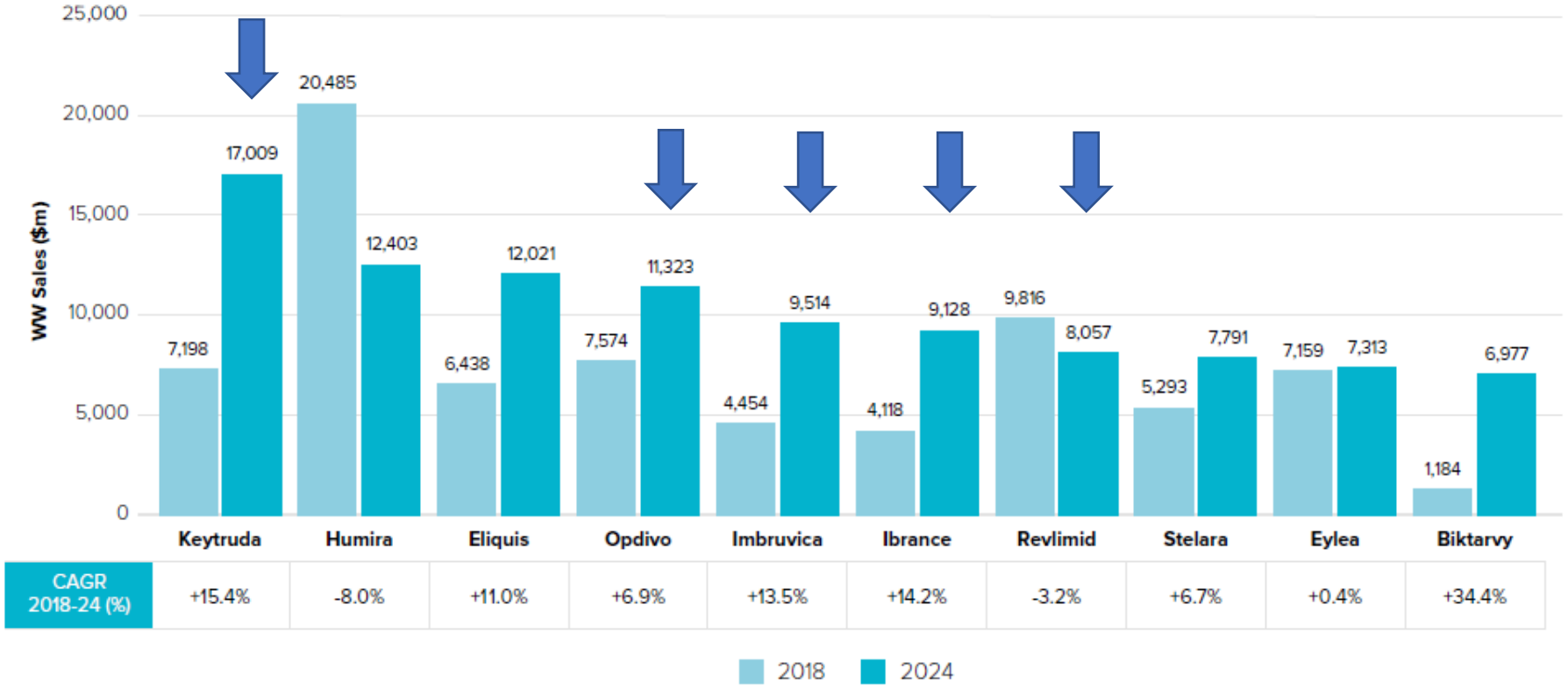
Top 10 Selling Drugs World Wide – 2024 Prediction



Source: EvaluatePharma, May 2019

Cancer Drugs

Approximate Patent Expiry

Keytruda – 2026
Opdivo – 2027
Imbruvica – 2026
Ibrance - 2023
Revlimid - 2023

Summary

In summary: ‘The perfect storm’ creates the need for a new and knowledgeable strategy for all stakeholders to provide the best cancer treatments in a cost effective manner.

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- The combination of more patients, longer and more expensive treatments is a conundrum for the PMI industry.
- PMI’s want to be able to offer the latest therapy and differentiate from the NHS, but this is an expensive choice.
- A lot of PMI’s do not understand cancer therapy and pay over the odds for cancer drugs, thus making it even more unaffordable.
- There is potential cost saving from the use of generic and bio-similar drugs.
- There are other creative strategies that the industry could adopt such as Personalised Medicine
- Limiting strategies often lead to a lack of differentiation from public funded care and exclusion of effective new medicines