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Biosimilar Market Dynamics

6th Edition, Q3 2024

FOREWORD

The US biosimilar market continues to expand in terms of the number of molecules and approved drugs. As of June 2024, a total of 57 biosimilars have been approved across 17 unique molecules.

As the market grows, it also becomes more complex. Pricing strategies have continued to vary during new launches and also with some established biosimilars. In addition, the US market has also seen the first introduction of private label biosimilars. The market is continually evolving and the need to monitor change on a routine basis has become critical to stakeholder evaluations.

Competition and market reactions vary for each molecule. Our report investigates the market share and price trends for each molecule, allowing you to access and compare current market dynamics on a timely basis.

In this issue, we address frequently asked questions regarding interchangeability (IC) exclusivity and evolving FDA sentiments on the IC designation. Additionally, we feature a stakeholder interview surrounding the successful transition to adalimumab biosimilars.

The biosimilar market is no longer simple. However, as always, we strive to deliver quick and organized information to the US healthcare market.

Thomas Newcomer
Vice President
Head of Market Access, Samsung Bioepis US

SAMSUNG BIOEPIS

Our mission

Samsung Bioepis is a biopharmaceutical company dedicated to accelerating access to biologic medicines by bringing **high-quality, clinically proven biosimilars to patients** who need them

Our mission is reflected in our name, **bio-epis;** literally meaning life (**“bio”**) and science (**“episteme”**) in Greek

> Unlocking the **future of healthcare** by breakthrough **innovation and science**

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I. US Biosimilars Approval & Launch Status

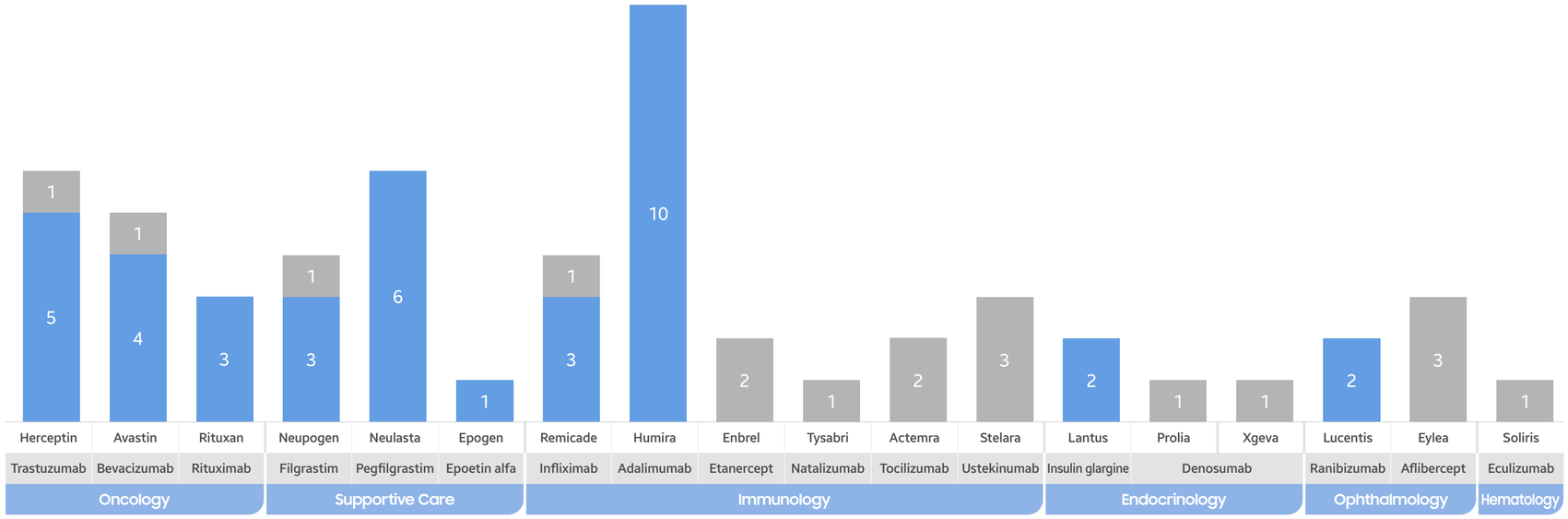
FDA Approval and Launch Status of US Biosimilars

* As of Jun 2024, the FDA has approved a total of 57 biosimilars across 17 unique biological molecules. Of the 57 approvals, 39 biosimilars have launched in the US market.

Cumulative Approvals
57

* In last quarter, eight new biosimilars were approved in the US. *(See Figure 2, 2-1 in next slide)*
  - Selarsdi and Pyzchiva for Stelara (ustekinumab) biosimilar
  - Hercessi for Herceptin (trastuzumab) biosimilar
  - Opuviz, Yesafili, and Ahzantive for Eylea (aflibercept) biosimilar
  - Bkemv for Soliris (eculizumab) biosimilar
  - Nypozi for Neupogen (filgrastim) biosimilar

Figure 1. Biosimilars Approval and Launch Status in the US[1*] (As of Jun 2024)



FDA: Food and Drug Administration
*Trade marks are not described to all brands

Figure 2. Biosimilars Approval and Launch Status in the US[1*] (As of Jun 2024, with Suffix)

TA	Oncology			Supportive Care			Immunology					
Molecule	Trastuzumab	Bevacizumab	Rituximab	Filgrastim	Pegfilgrastim	Epoetin alfa	Infliximab	Adalimumab	Etanercept	Natalizumab	Tocilizumab	Ustekinumab
Reference Product	Herceptin (trastuzumab) Roche 1998	Avastin (bevacizumab) Roche 2004	Rituxan (rituximab) Genentech&Biogen 1997	Neupogen (filgrastim) Amgen 1991	Neulasta (pegfilgrastim) Amgen 2002	Epogen (epoetin alfa) Amgen 1898	Remicade (infliximab) Janssen 1998	Humira (adalimumab) AbbvVie 2002	Enbrel (etanercept) Amgen 2003	Tysabri (natalizumab) Biogen 2004	Actemra (tocilizumab) Genetech 2010	Stelara (ustekinumab) Janssen 2009
Biosimilar	Ogivri (trastuzumab-dkst) Biocon 2017	Mvasi (bevacizumab-awwb) Amgen 2017	Truxima (rituximab-abbs) Celltrion&Teva 2018	Zarxio (filgrastim-sndz) Sandoz 2015	Fulphila (pegfilgrastim-jmdb) Biocon 2018	Retacrit (epoetin alfa-epbx) Hospira&Pfizer 2018	Inflectra (infliximab-dyyb) Celltrion&Pfizer 2016	Amjevita (adalimumab-atto) Amgen 2016	Erelzi (etanercept-szzs) Sandoz 2016	Tyruko (natalizumab-sztn) Sandoz 2023	Tofidence (tocilizumab-bavi) Biogen&Bio-Thera 2023	Wezlana (ustekinumab-auub) Amgen 2023
	Herzuma (trastuzumab-pkrb) Celltrion&Teva 2018	Zirabev (bevacizumab-bvzr) Pfizer 2019	Ruxience (rituximab-pvvr) Pfizer 2019	Nivestym (filgrastim-aafi) Hospira&Pfizer 2018	Udenyca (pegfilgrastim-cbqv) Coherus 2018		Renflexis (infliximab-abda) Samsung Bioepis&Organon 2017	Cyltezo (adalimumab-adbm) Boehringer Ingelheim 2017	Eticovo (etanercept-ykro) Samsung Bioepis 2019		Tyenne (tocilizumab-aazg) Fresenius Kabi 2024	Selarsdi (ustekinumab-aekn) Alvotech&Teva 2024
	Ontruzant (trastuzumab-dttb) Samsung Bioepis&Organon 2019	Alymsys (bevacizumab-maly) Amneal 2022	Riabni (rituximab-arrx) Amgen 2020	Releuko (filgrstim-ayow) Amneal&Kashiv 2022	Ziextenzo (pegfilgrastim-bmez) Sandoz 2019		Avsola (infliximab-axxq) Amgen 2019	Hyrimoz (adalimumab-adaz) Sandoz 2018				Pyzchiva (ustekinumab-ttwe) Samsung Bioepis&Sandoz 2024
	Trazimera (trastuzumab-qyyp) Pfizer 2019	Vegzelma (bevacizumab-adcd) Celltrion 2022		Nypozi (filgrastim-txid) Tanvex 2024	Nyvepria (pegfilgrastim-apgf) Hospira&Pfizer 2020		Ixifi (infliximab-qbtx) Pfizer 2017	Hadlima (adalimumab-bwwd) Samsung Bioepis&Organon 2019				
	Kanjinti (trastuzumab-anns) Amgen 2019	Avzivi (bevacizumab-tnjn) Sandoz&Bio-Thera 2023			Stimufend (pegfilgrastim-fpgk) Fresenius Kabi 2022			Abrilada (adalimumab-afzb) Pfizer 2019				
	Hercessi (trastuzumab-strf) Accord BioPharma&Henlius 2024				Fylnetra (pegfilgrastim-pbbk) Amneal&Kashiv 2022			Hulio (adalimumab-fkjp) Biocon 2020				
								Yusimry (adalimumab-aqvh) Coherus 2021				
								Idacio (adalimumab-aacf) Fresenius Kabi 2022				
								Yuflyma (adalimumab-aaty) Celltrion 2023				
								Simlandi (adalimumab-ryvk) Alvotech&Teva 2024				

Launched Not launched Updated brand vs. last quarter

*Trade marks are not described to all brands

Continued on next page →

Figure 2-1. Biosimilars Approval and Launch Status in the US[1*] (As of Jun 2024, with Suffix)

TA	Endocrinology		Ophthalmology		Hematology/Nephrology
Molecule	Denosumab	Insulin glargine	Ranibizumab	Aflibercept	Eculizumab
Reference Product	Prolia/Xgeva (denosumab) Amgen 2010	Lantus (insulin glargine) Sanofi 2000	Lucentis (ranibizumab) Novartis 2006	Eylea (aflibercept) Regeneron 2011	Soliris (eculizumab) Alexion 2007
Biosimilar	Jubbonti/Wyost (denosumab-bbdz) Sandoz 2024	Semglee (insulin glargine-yfgn) Biocon 2021	Byooviz (ranibizumab-nuna) Samsung Bioepis&Biogen 2021	Opuviz (aflibercept-yszy) Samsung Bioepis&Biogen 2024	Bkemv (eculizumab-aeeb) Amgen 2024
		Rezvoglar (insulin glargine-aglr) Eli Lilly 2021	Cimerli (ranibizumab-eqrn) Coherus 2022	Yesafili (aflibercept-jbvf) Biocon 2024	
				Ahzantive (aflibercept-mrbb) Formycon&Klinge 2024	

Launched Not launched Updated brand vs. last quarter

*Trade marks are not described to all brands

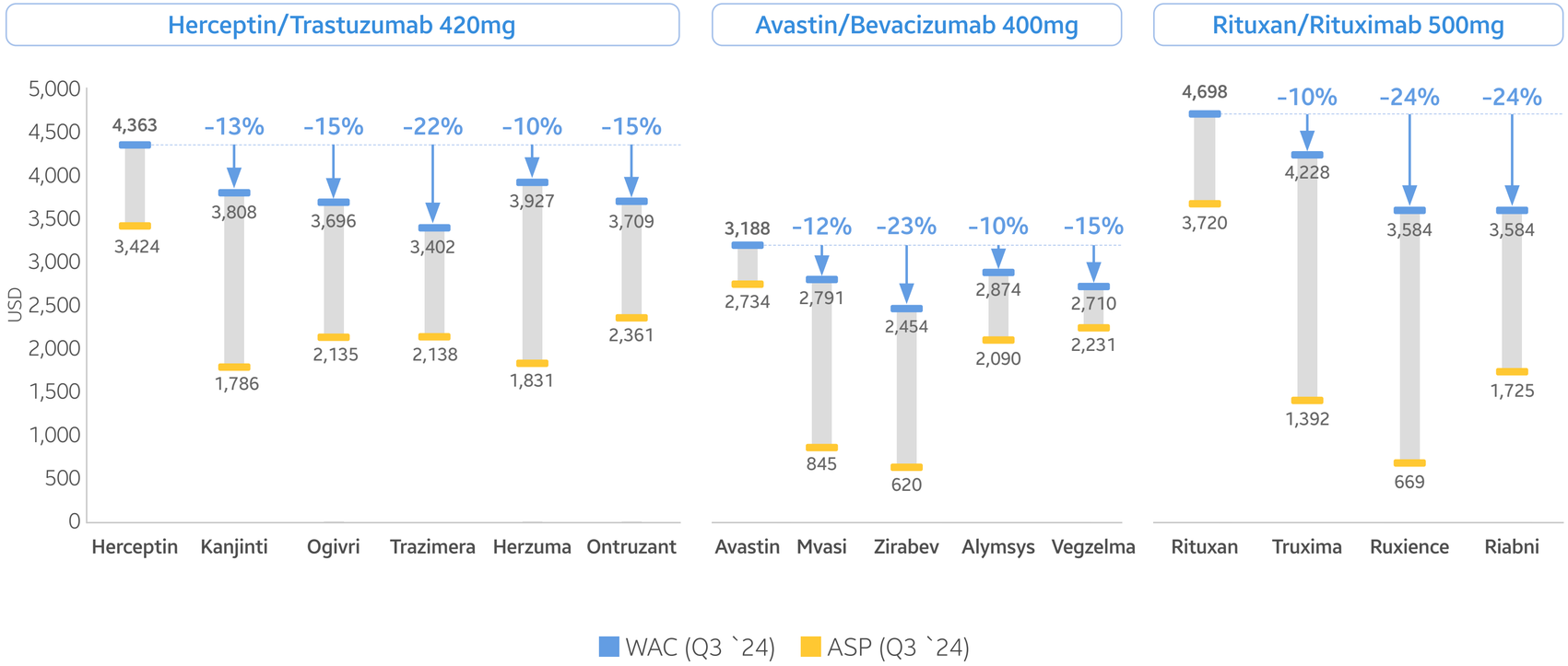
II. Biosimilar Price

(Medical Benefit & Pharmacy Benefit)

Oncology WAC and ASP – Q3 2024

- Across oncology biosimilars, WAC prices represent a modest discount (between 10-25%) compared to reference products.
- Savings are seen in ASP where oncology biosimilars can save the health care system up to 90% compared to their reference products.

Figure 3. Q3 2024 WAC and ASP[2,3]

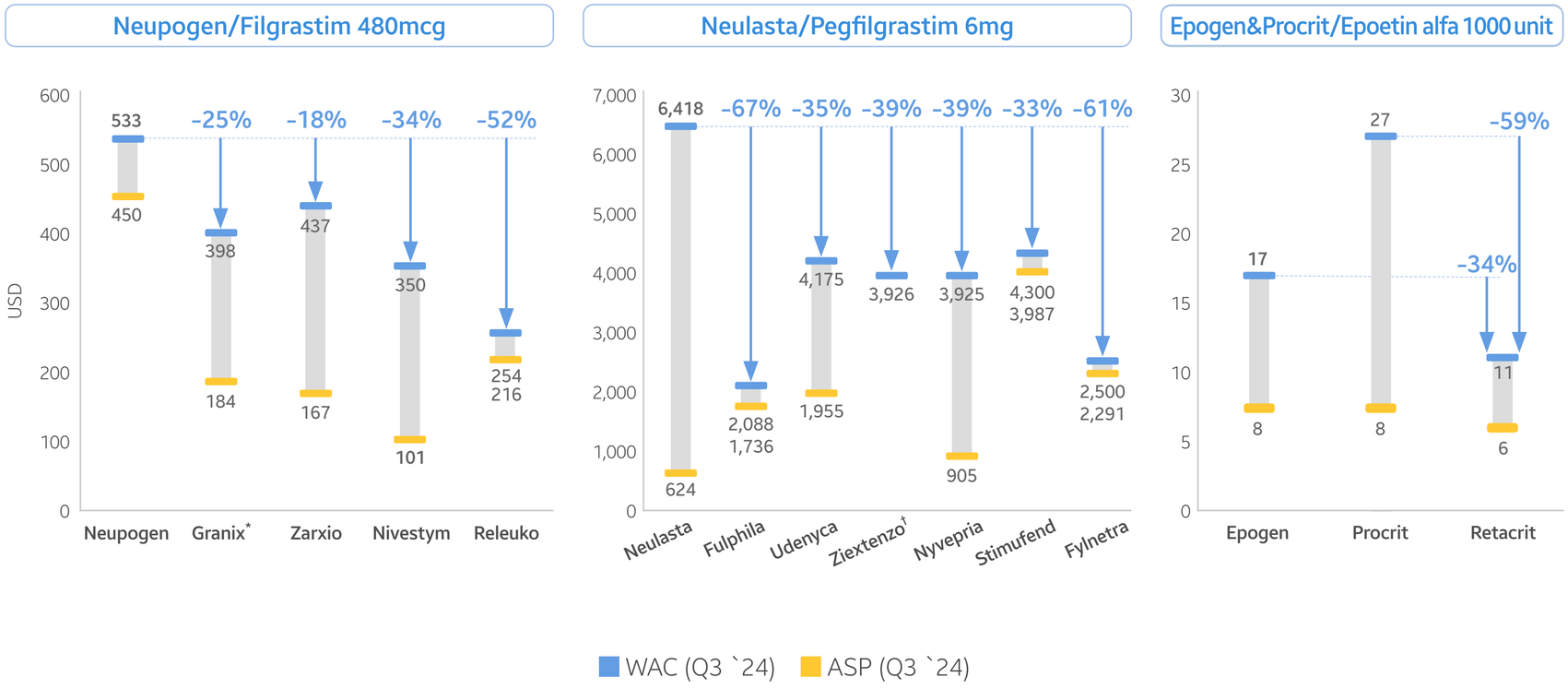


Products are listed in order of launch
ASP: Average Sales Price; **WAC**: Wholesale Acquisition Cost

Supportive Care WAC and ASP - Q3 2024

- In pegfilgrastim and epoetin alfa, the reference product ASP matches the biosimilars in an effort to retain market share.
- However, Neupogen maintains higher ASP relative to biosimilars.

Figure 4. Q3 2024 WAC and ASP[2,3]

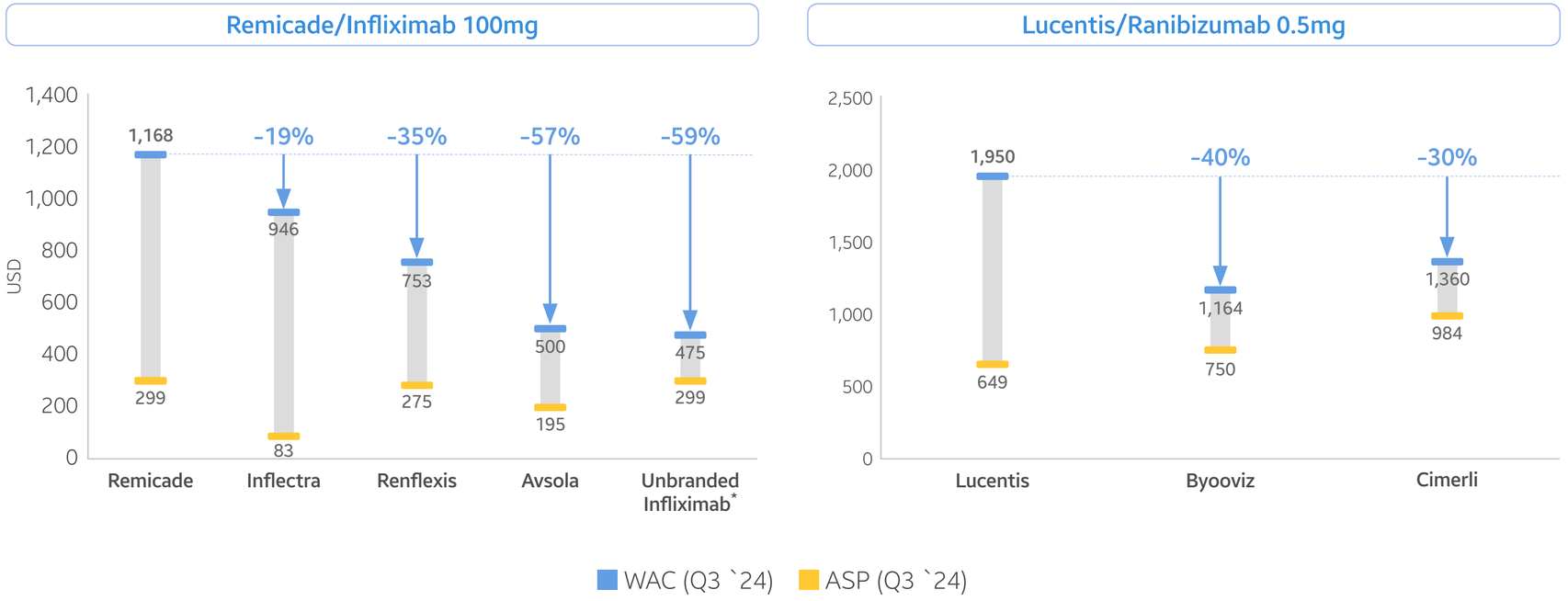


Products are listed in order of launch
ASP: Average Sales Price; **WAC**: Wholesale Acquisition Cost
*Granix is not a biosimilar; approved under the FDA's New Drug Application pathway †Ziextenzo ASP is unpublished as of Q3 2024

Immunology & Ophthalmology WAC and ASP - Q3 2024

- Infliximab biosimilars launched with progressively lower WACs, ranging from -19% to -59% in discounts. Biosimilar competition has led to ASP prices 74-93% lower than the reference product WAC.
- Recent ranibizumab biosimilar launches have already led to lower reference product ASP costs.

Figure 5. Q3 2024 WAC and ASP[2,3]

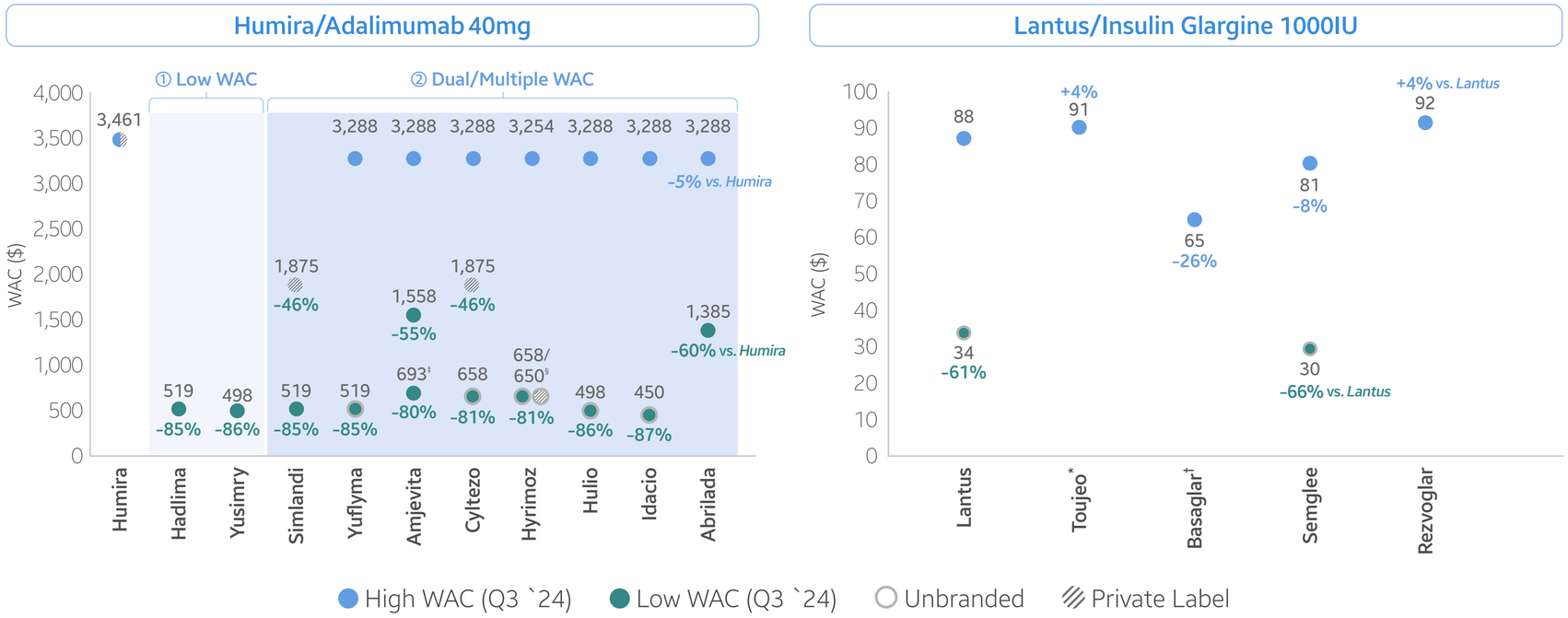


Products are listed in order of launch
ASP: Average Sales Price; **WAC**: Wholesale Acquisition Cost
*Janssen's Remicade without the brand name

Immunology & Endocrinology WAC and NADAC - Q3 2024

- Insulin glargine & adalimumab categories reflect recent pricing practices such as "unbranded biologics" and high/low WAC options.
- With no published ASP for products under the pharmacy benefit it is difficult to ascertain true net prices.

Figure 6. Q3 2024 WAC[2]



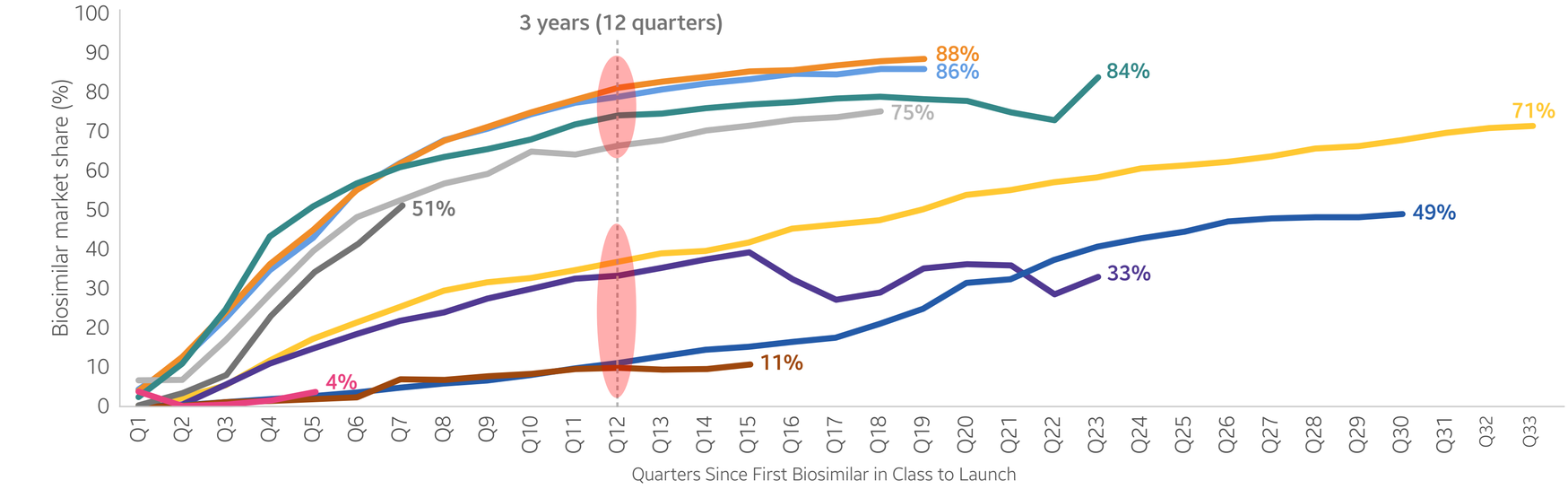
Products are listed in order of launch
WAC: Wholesale Acquisition Cost
‡Amjevita only launched in low WAC for high concentration §Cordavis price of Hyrimoz *Toujeo is high dose version of Lantus †Basaglar is not a biosimilar, approved under the FDA's New Drug Application pathway

III. Biosimilar Market Dynamics

Biosimilar Volume Uptake Varies by Molecule

- **On average, biosimilars have gained 53% market share within three years (12 quarters) post initial launch. Each molecule has demonstrated unique biosimilar uptake and can be categorized into fast or slow uptake speed markets.**
  1) **Fast Uptake Speed**: Oncology*, ophthalmology, and pegfilgrastim biosimilars. Three years post launch, average biosimilar market share reached 75%.†
  2) **Slow Uptake Speed:** Immunology‡, filgrastim, epoetin alfa, and insulin glargine biosimilars. On average, only 23% biosimilar market share was achieved by Year 3.†
- **Notably, biosimilar adoption can evolve as the market matures. As an example, infliximab and filgrastim biosimilar adoption continues to grow despite showing slow uptake in the first three years of market entry.**

Figure 7. Biosimilar Market Share Post-Launch[5]

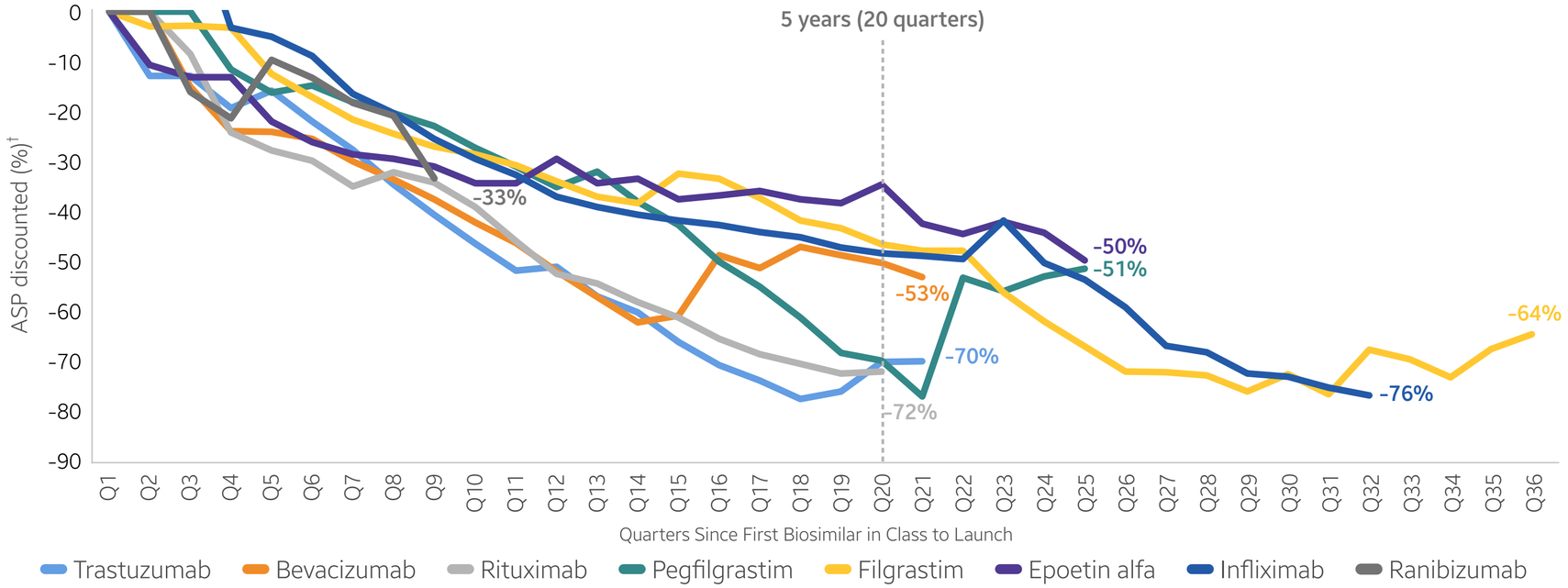


*Trastuzumab, bevacizumab, and rituximab
†Averages include products that are 3 years or older ‡Infliximab and adalimumab

Biosimilars are Reducing Drug Costs across Multiple TAs by Lowering Prices

- Biosimilar launches have led to significant price decreases over time. On average, ASP declined by 56% five years (20 quarters) post first biosimilar launch with more mature markets demonstrating increasing price concessions.
- Recent observed increases in ASP for some markets (e.g. trastuzumab, bevacizumab, pegfilgrastim and filgrastim) may be due to: 1) artifacts of newly-launched, low market share biosimilars with ASPs that reflect WAC pricing and 2) intentional ASP repositioning of some biosimilars.

Figure 8. ASP Trend by Molecule[3]



TA: Therapeutic Area; ASP: Average Sales Price
† ASP discounted % vs. reference product ASP when first biosimilar in class launch

Market Share and ASP Trends - Herceptin (Trastuzumab)

- As of Q1 2024, the biosimilar share of the trastuzumab market has reached 86% (unchanged vs. last quarter).
- As of Q3 2024, average ASP of all products is $1,589 (-63%)* and the average for biosimilars alone is $1,288 (-70%)*.
  - The average ASP has increased in 2024 due to recent increases in Ogivri and Herzuma ASPs.
- Trastuzumab biosimilars with the lowest ASPs maintain the dominant market share, however recent trends show Ogivri gaining market share (+5% vs. Q4 2023) coinciding with increases in its WAC and ASP in 2024.

Figure 9. Trastuzumab Volume Market Share[5]

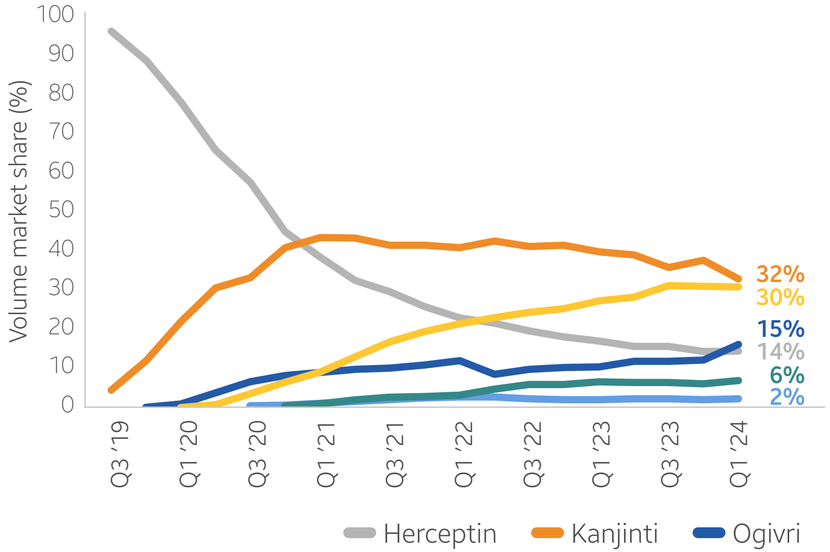
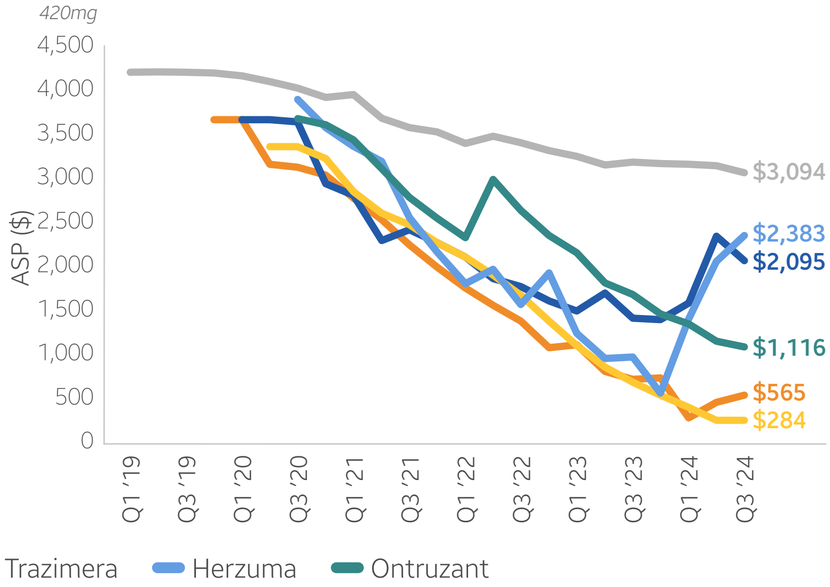


Figure 10. Trastuzumab ASP Trend[3]



Herceptin Kanjinti Ogivri Trazimera Herzuma Ontruzant

Products are listed in legends in order of launch ASP: Average Sales Psrice
*Percentages reflect the change from the reference product's ASP at the time of the first biosimilar launch.

Market Share and ASP Trends - Avastin (Bevacizumab)

- As of Q1 2024, the biosimilar share of the bevacizumab market was 88% (unchanged vs. last quarter).
- As of Q3 2024, average ASP of all products is $1,704 (-44%)* and the average for biosimilars alone is $1,447 (-53%)*.
- Bevacizumab biosimilars with the lowest ASPs have dominant market share. However, more recent biosimilar entrants (i.e. Almysys and Vegzelma) are starting to compete for market share.

Figure 11. Bevacizumab Volume Market Share[5]

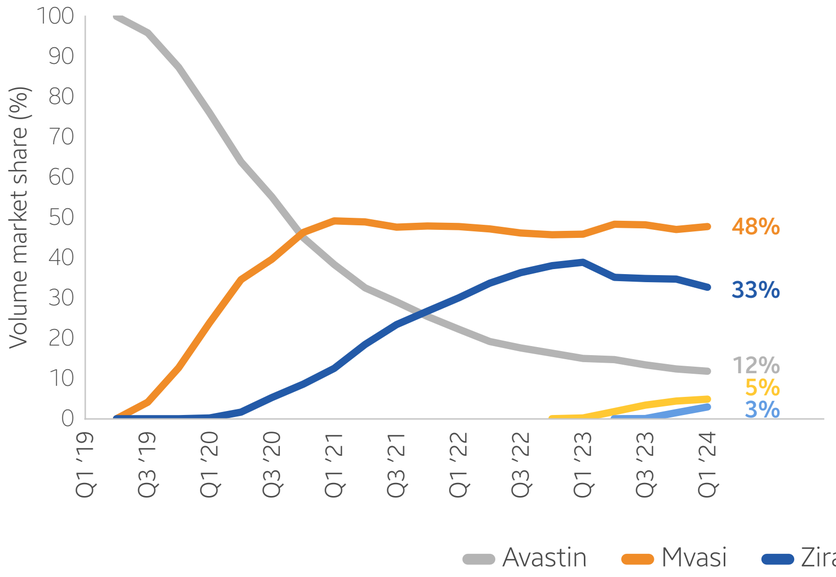
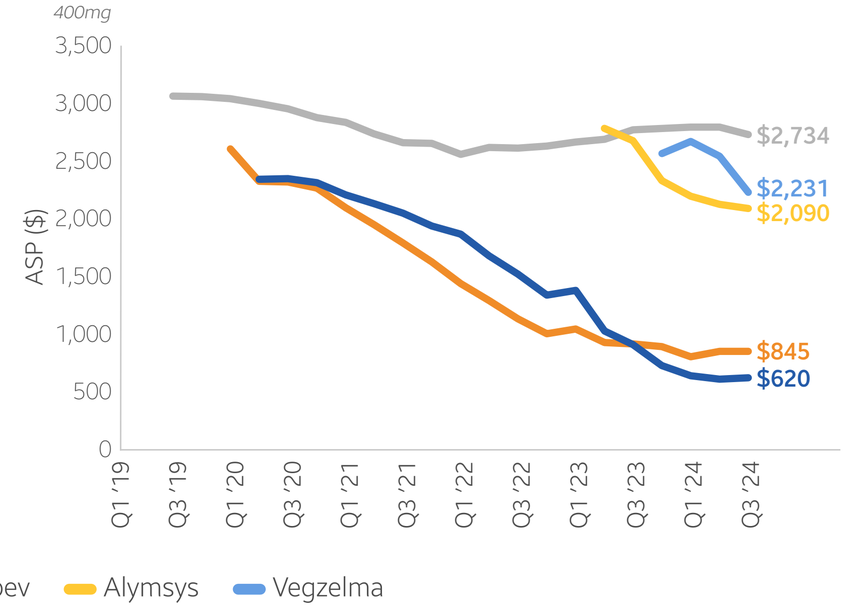


Figure 12. Bevacizumab ASP Trend[3]



Avastin Mvasi Zirabev Alymsys Vegzelma

Products are listed in legends in order of launch **ASP**: Average Sales Price
*Percentages reflect the change from the reference product's ASP at the time of the first biosimilar launch.

Market Share and ASP Trends - Rituxan (Rituximab)

- As of Q1 2024, the biosimilar share of the rituximab market was 75% (+2% vs. last quarter).
- As of Q3 2024, the average ASP of all products is $1,863 (-58%)* and the average for biosimilars alone is $1,262 (-72%)*.
- In the rituximab market, lower priced biosimilars are dominating the market. The later entrant, Riabni, has started to grow in market share as its ASP declines.

Figure 13. Rituximab Volume Market Share[5]

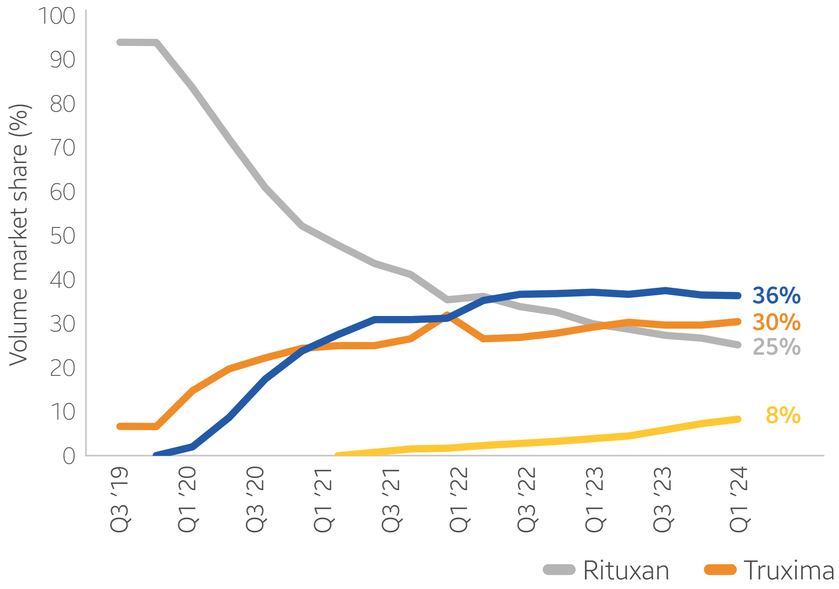
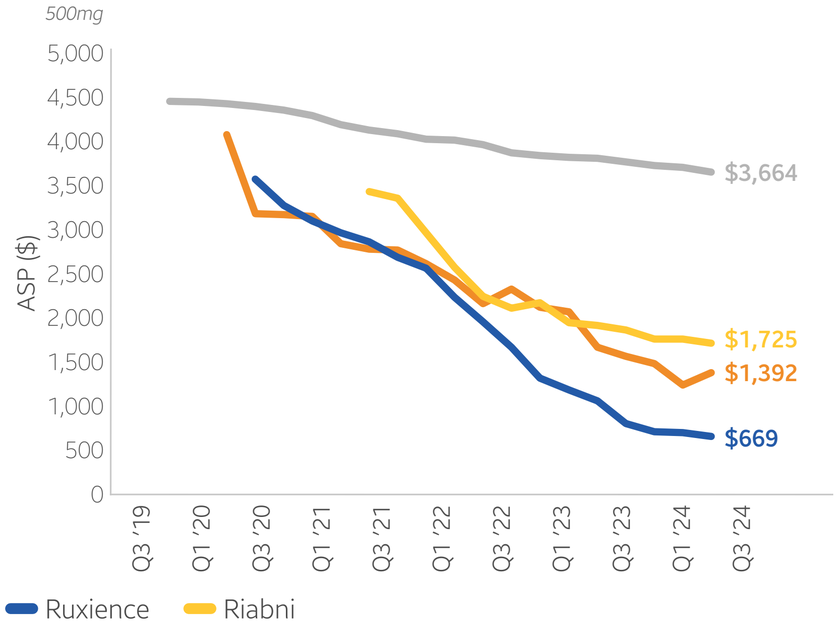


Figure 14. Rituximab ASP Trend[3]



Products are listed in legends in order of launch **ASP**: Average Sales Price
*Percentages reflect the change from the reference product's ASP at the time of the first biosimilar launch

Market Share and ASP Trends - Neupogen (Filgrastim)

- As of Q1 2024, the biosimilar share of the filgrastim market has reached 85% (-1% vs. last quarter).
- As of Q3 2024, the average ASP of all products is $194 (-57%)* and the average for biosimilars alone is $130 (-75%)*
- In the filgrastim market, lower priced biosimilars are dominating the market.

Figure 15. Filgrastim Volume Market Share[5]

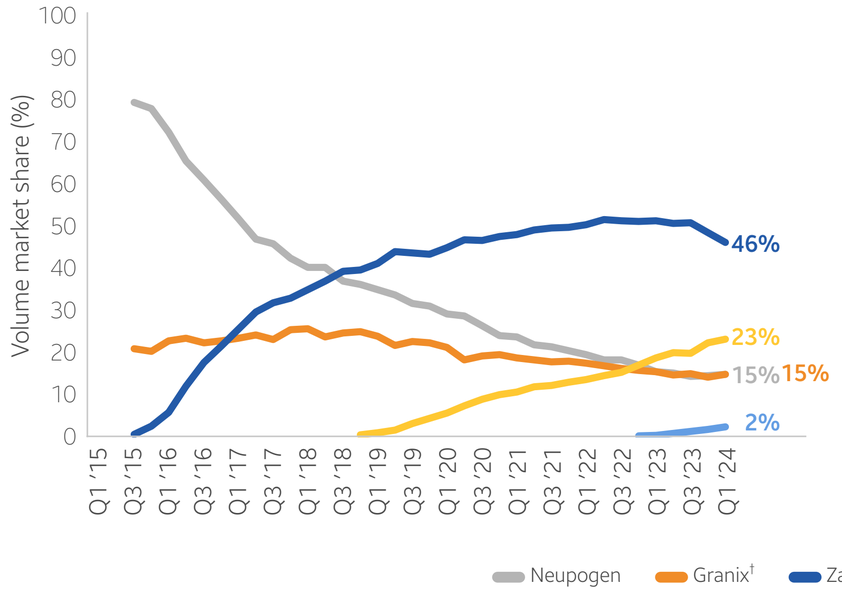
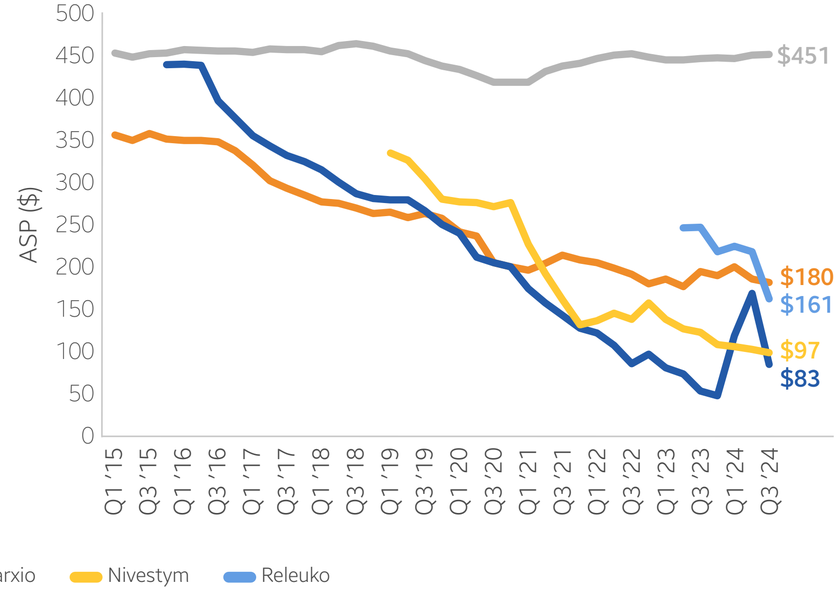


Figure 16. Filgrastim ASP Trend[3]



Neupogen | Granix† | Zarxio | Nivestym | Releuko

Legends are listed in order of launch **ASP**: Average Sales Price
*Percentages reflect the change from the reference product's ASP at the time of the first biosimilar launch
†Granix is not abiosimilar; It's approved under FDA, a new drug application pathway

Market Share and ASP Trends - Neulasta (Pegfilgrastim)

- As of Q1 2024, the biosimilar share of the pegfilgrastim market was 84% (+9% vs. last quarter).
- As of Q3 2024, the average ASP of all products is $1,916 (-56%)* and the average for biosimilars alone is $2,175 (-53%)*.
  - The 2024 average ASP has increased slightly due to Ziextenzo market removal and ASP correction strategies from Neulasta and Fulphila.
- The pegfilgrastim biosimilar market is quite competitive with narrow differences in market share and two more recent entrants.

Figure 17. Pegfilgrastim Volume Market Share[5]

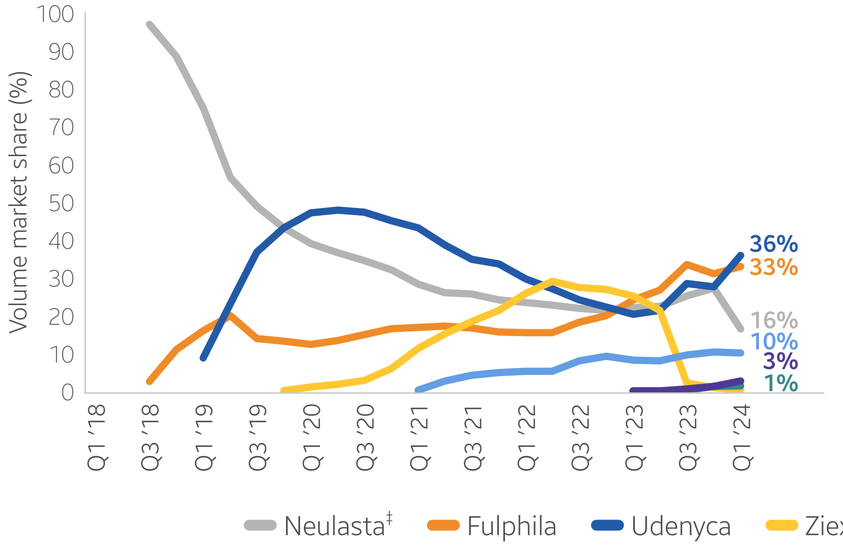
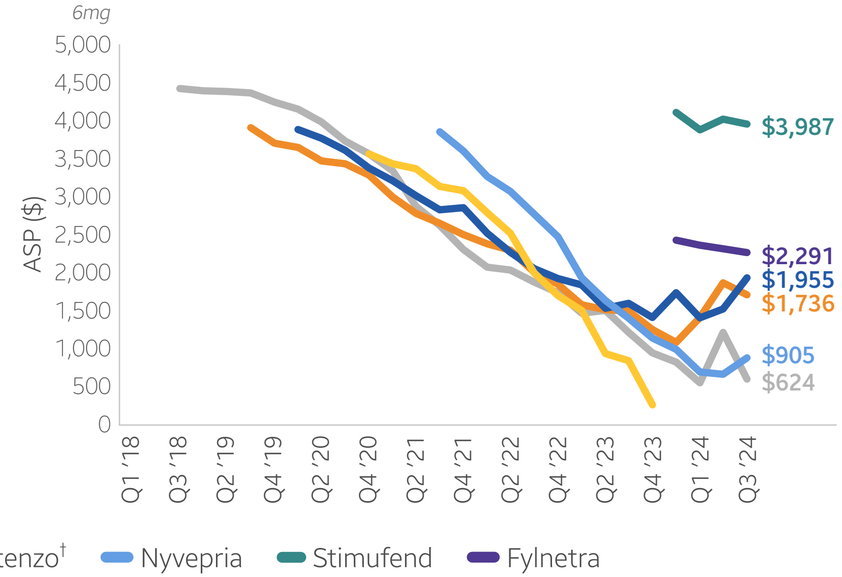


Figure 18. Pegfilgrastim ASP Trend[3]



Neulasta‡ Fulphila Udenyca Ziextenzo† Nyvepria Stimufend Fylnetra

Legends are listed in order of launch **ASP**: Average Sales Price
*Percentages reflect the change from the reference product's ASP at the time of the first biosimilar launch †Ziextenzo ASP is not published in 4Q 2023 ‡Onpro is not included

Market Share and ASP Trends - Epogen/Procrit (Epoetin alfa)

- Retracrit, the only biosimilar of epoetin alfa, maintains about a third of the epoetin alfa market share.
- By matching ASP, the two reference products have maintained a combined share of approximately 70%.

Figure19. Epoetin Alfa Volume Market Share[5]

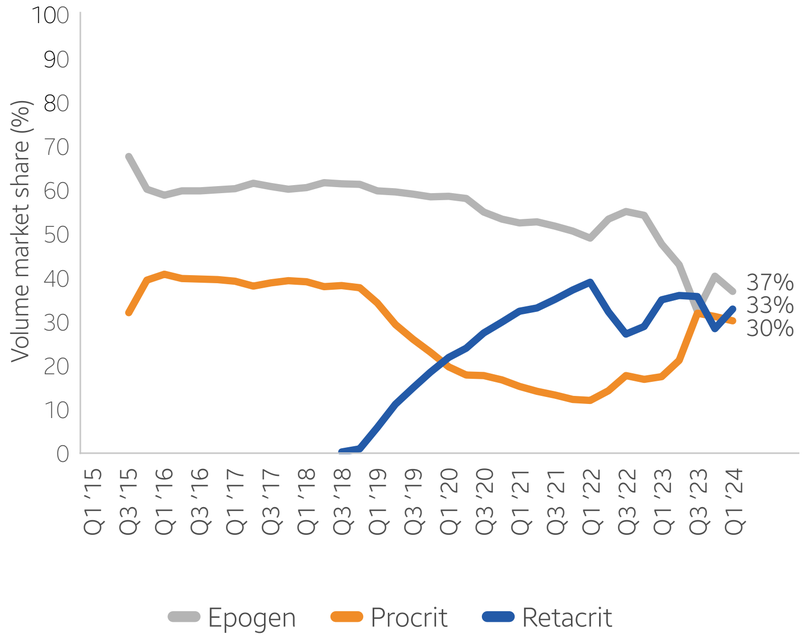
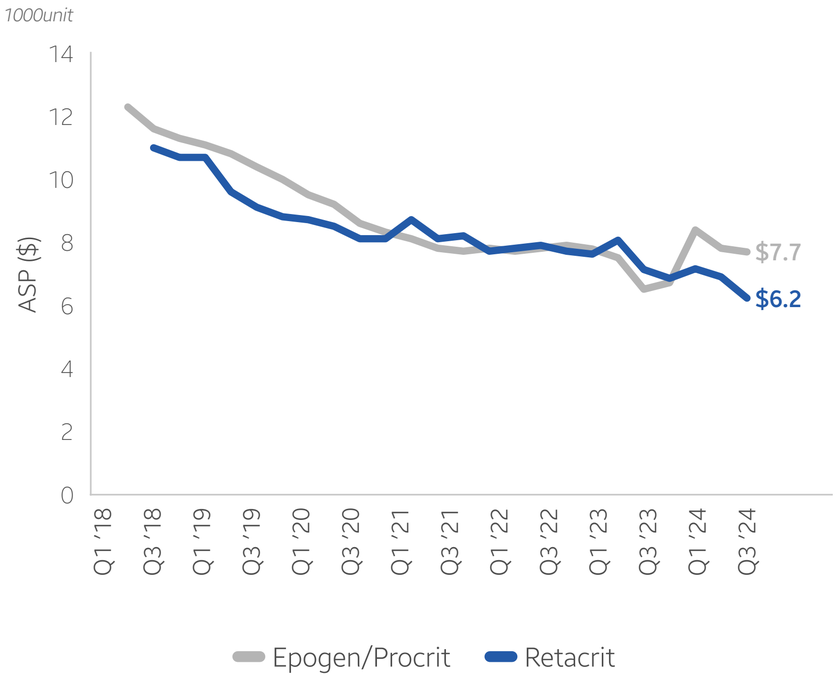


Figure 20. Epoetin alfa ASP Trend[3]



Legends are listed in order of launch
ASP: Average Sales Price

Market Share and ASP Trends - Remicade (Infliximab)

- As of Q1 2024, infliximab biosimilar market share has reached 49% (+1% vs. last quarter).
- As of Q3 2024, the average ASP of all products is $213 (-73%)* and the average for biosimilars alone is $184 (-76%)*.
- Janssen's competitive ASP pricing via the launch of an unbranded infliximab of Remicade in Q4 2021 has allowed the reference product to hold onto the market leading position.

Figure 21. Infliximab Volume Market Share[5]

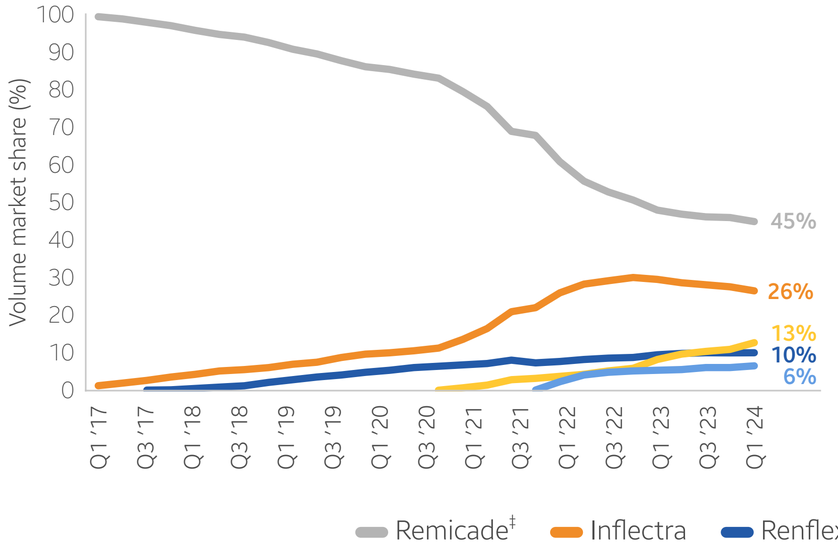
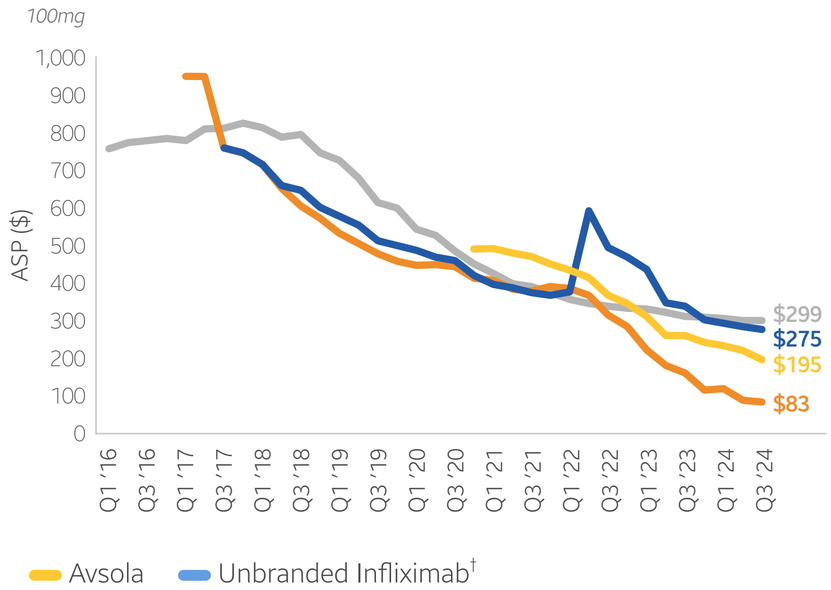


Figure 22. Infliximab ASP Trend[3]



Remicade‡ Inflectra Renflexis Avsola Unbranded Infliximab†

Legends are listed in order of launch
ASP: Average Sales Price
*Percentages reflect the change from the reference product's ASP at the time of the first biosimilar launch †Janssen's Remicade without the brand name ‡Remicade and Unbranded Infliximab share a J code

Market Share and WAC Trends - Humira (Adalimumab)

- **As of May 2024, Humira market share has dropped to 82% (-13% vs. Mar 24).**
  - Most biosimilar gains have come from Cordavis-labeled Hyrimoz.
  - Amongst the Cordavis-labeled products, Humira has 28% market share.
- **Biosimilar brands have provided the market with diverse WAC pricing options.**
  1) Hadlima and Yusimry offer a low WAC: ~85-86% less than Humira.
  2) Cyltezo, Amjevita, Hyrimoz, Hulio, Idacio, Yuflyma, Abrilada, and Simlandi offer dual/multiple pricing options (i.e. high and low WAC).

Figure 23. Adalimumab Volume Market Share[6]

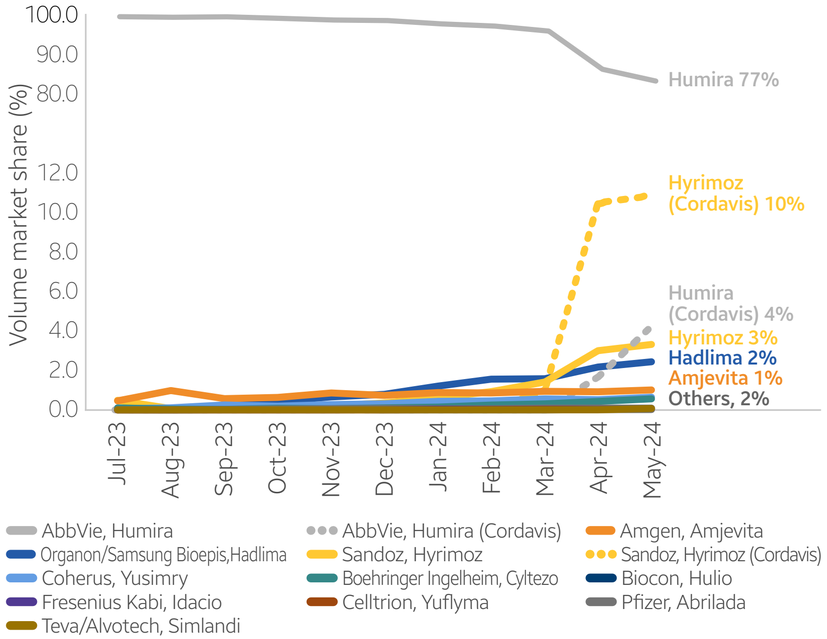
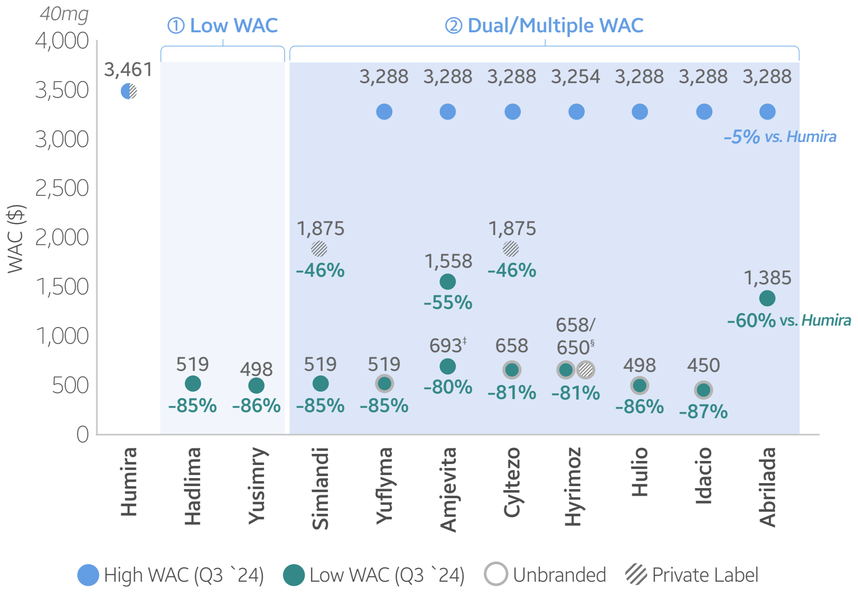


Figure 24. Adalimumab WAC Trend[2]



WAC: Wholesale acquisition cost
‡ Amjevita only launched in low WAC for high concentration §Cordavis price of Hyrimoz

Market Share and WAC Trends - Lantus (Insulin glargine)

There are complex product dynamics within the insulin glargine (ISG) market:

- Sanofi markets three versions of insulin glargine (ISG): 1) the reference product, Lantus; 2) Toujeo (a higher dose ISG); and 3) unbranded Lantus
- Biocon has two Lantus biosimilars, Semglee (insulin glargine-yfgn) and unbranded Semglee (insulin glargine-yfgn).
- Lilly has two insulin glargine products: 1) Basaglar (insulin glargine), approved through a New Drug Application and 2) Rezvoglar (insulin glargine-aglr), an interchangeable Lantus biosimilar.

Sanofi's dual pricing strategy and competitive rates have helped to maintain Lantus' position as the market leader.

Figure 25. Insulin Glargine Volume Market Share[5]

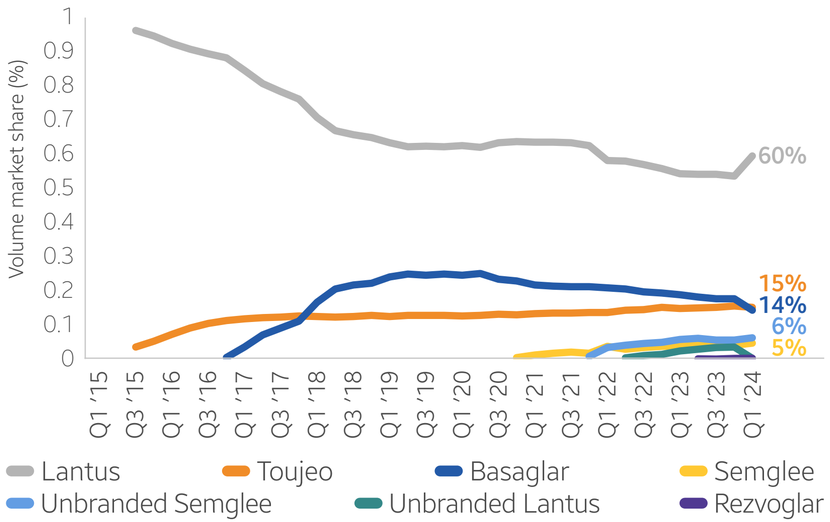
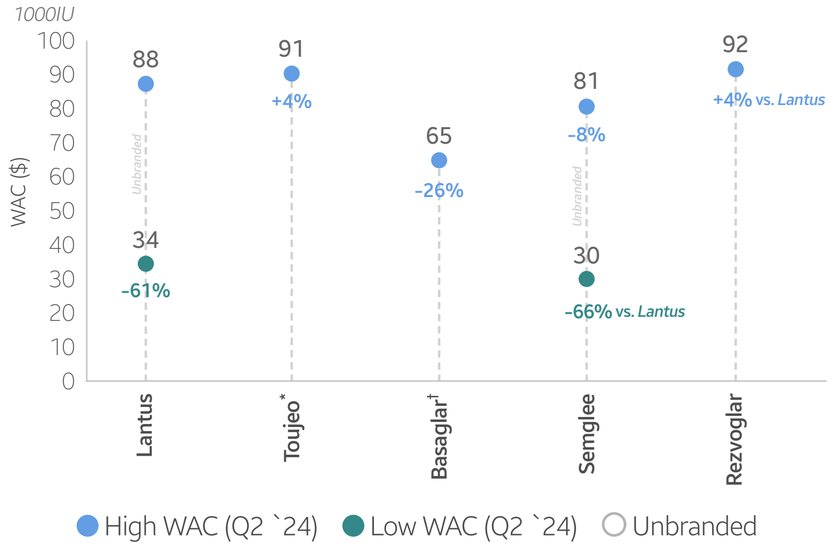


Figure 26. Insulin Glargine WAC Trend[2]



Legends are listed in order of launch
ISG: Insulin Glargine; **WAC**: Wholesale acquisition cost

Market Share and ASP Trends - Lucentis (Ranibizumab)

- As of Q1 2024, two biosimilars have launched accounting for a combined market share of 45% (+10% vs. last quarter).
- As of Q3 2024, the average ASP of all products is $794 (-39%)* and the average for biosimilars alone is $876 (-33%)*.
- Counterintuitively, Cimerli continues to grow in market share despite having the highest ASP.

Figure 27. Ranibizumab Volume Market Share[5]

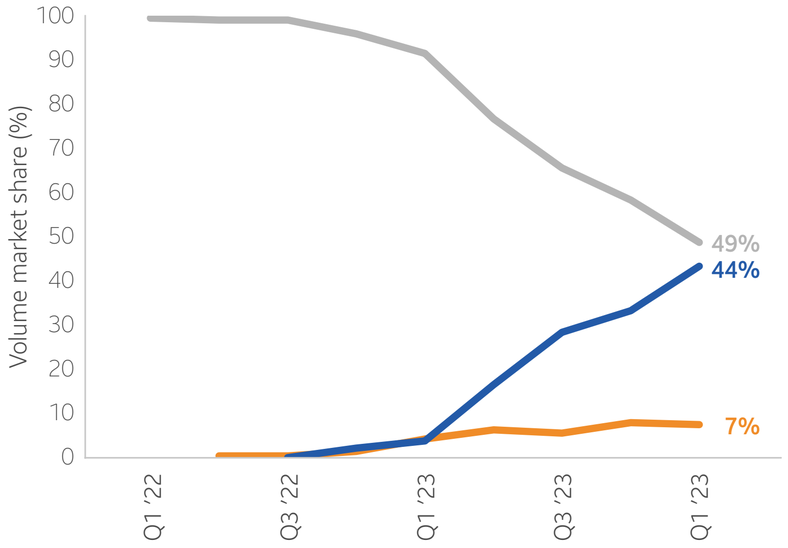
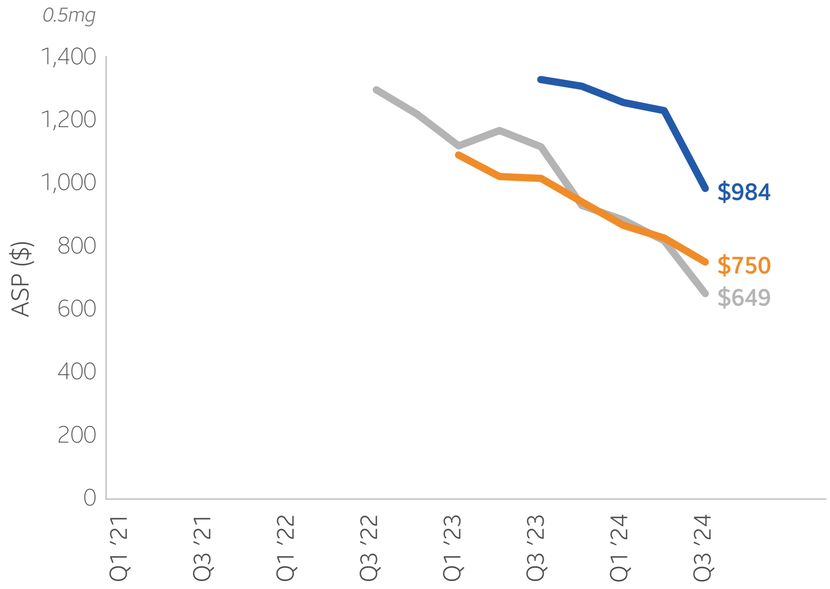


Figure 28. Ranibizumab ASP Trend[3]



Legends are listed in order of launch
ASP: Average Sales Price
*Percentages reflect the change from the reference product's ASP at the time of the first biosimilar launch.

IV. Biosimilar Deep Dive

1) Frequently Asked Questions (FAQ): Interchangeable Biosimilars and Exclusivity

FAQ: Interchangeable Biosimilars and Exclusivity

Q1. What Does the Interchangeability (IC) Exclusivity Mean?

The interchangeability (IC) designation, introduced as part of the Biologics Price Competition and Innovation Act of 2009 (BPCIA) enacted on March 23, 2010, enables biosimilar products to be substituted for the reference product at the pharmacy level without a new prescription from the healthcare provider who prescribed the reference product. As of June 2024, a total of 14 out of 57 FDA approved biosimilar products have obtained the IC designation.[7]

As an incentive to be the first to seek the IC designation, an exclusivity period is granted to the first biosimilar product to receive the IC designation, which delays any subsequent biosimilars from obtaining IC until the FDA-determined exclusivity expiry date.[8]

Reference Product	Biosimilars with IC Designation			
Lantus	Semglee (insulin glargine-yfgn)	Rezvoglar (insulin glargine-aglr)		
Humira	Cyltezo (adalimumab-adbm)	Simlandi (adalimumab-ryvk)	Hyrimoz (adalimumab-adaz)	Abrilada (adalimumab-afzb)
Lucentis	Byooviz (ranibizumab-nuna)	Cimerli (ranibizumab-eqrn)		
Stelara	Wezlana (ustekunumab-auub)			
Eylea	Opuviz (aflibercept-yszy)	Yesafili (aflibercept-jbvf)		
Prolia/Xgeva	Jubbonti (denosumab-bbdz)	Wyost (denosumab-bbdz)		
Soliris	Bkemv (eculizumab-aeeb)			

Interchangeable Biosimilar Product with First Interchangeable Exclusivity Interchangeable Biosimilar Product

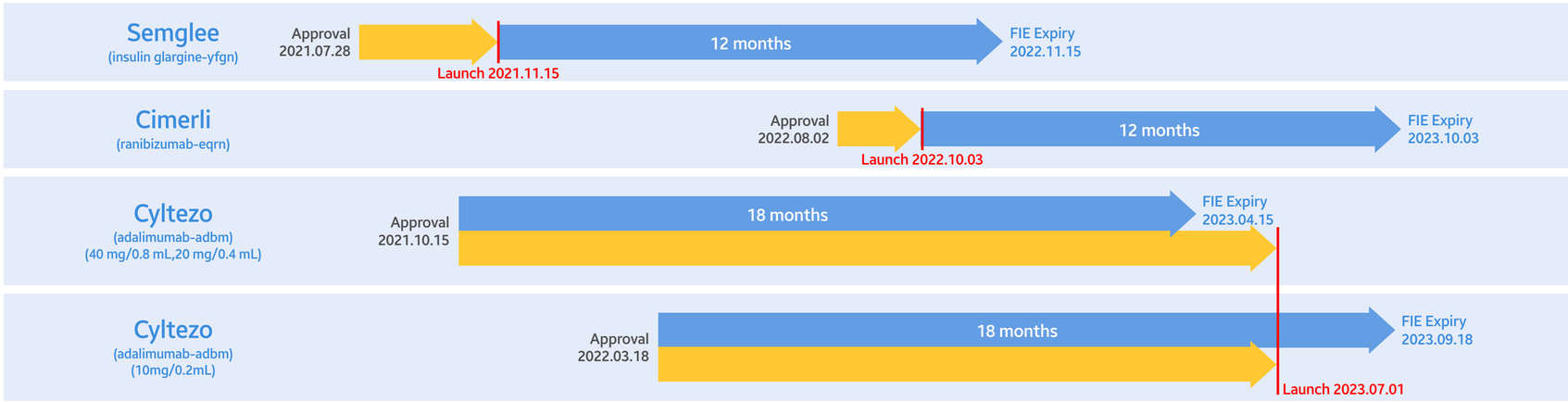
FAQ: Interchangeable Biosimilars and Exclusivity

Q2. How Do You Determine the First Interchangeability Exclusivity (FIE) Period?

The Biologics Price Competition and Innovation Act (BPCIA) provides the legal definition of first interchangeable exclusivity (FIE), but determining the FIE's start/stop dates entails FDA's interpretation as well. The FIE is effective until the earlier of:[8]

- 12 months after the commercial marketing of the first approved interchangeable biosimilar,
- 18 months after a final court decision on all patents in suit in an action or dismissal of an action against the first approved interchangeable biosimilar, or
- 42 months after the first biosimilar approval if litigation is still ongoing, or 18 months after the approval of the first interchangeable biosimilar if no suit is filed.

For Semglee (insulin glargine-yfgn) and Cimerli (ranibizumab-eqrn), the FIE expiry date was determined as 12 months from launch. For Cyltezo (adalimumab-adbm), the FIE expiry dates were determined as 18 months from the approval date, but separate FIE dates were assigned to different strengths. The FIE for the 40mg/0.8 mL and 20 mg/0.4 mL strengths expired even before launch and the expiry date for the 10mg/0.2mL strength was separately assigned as it was added as a supplement on a later date.[9]



FAQ: Interchangeable Biosimilars and Exclusivity

Q3. How Has the FDA Perspective on IC Evolved?

As practical concerns regarding interchangeability (IC) have grown, there has been a noticeable shift in the FDA's current thinking on IC.

Clinical switching studies, initially considered necessary for the IC designation, are no longer *a de facto* requirement. For example, insulin glargine biosimilars (Semglee, Rezvoglar), ranibizumab biosimilars (Cimerli and Byooviz), ustekinumab biosimilar (Wezlana), and aflibercept biosimilars (Opuviz and Yesafili) were not required to.

US FDA Draft Guidance: Considerations in Demonstrating IC With a Reference Product: Update (Jun 2024))[11]

Since publication of the Interchangeability Guidance, experience has shown that for the products approved as biosimilars to date, the risk in terms of safety or diminished efficacy is insignificant following single or multiple switches between a reference product and a biosimilar product. Accordingly, FDA's scientific approach to when a switching study or studies may be needed to support a demonstration of IC has evolved. ... Applicants may choose to provide an assessment of why the comparative analytical and clinical data provided in the application or supplement support a showing that the switching standard set forth in section 351(k)(4)(B) of the PHS Act has been met.

From a clinical perspective, the FDA increasingly considers all biosimilars to have enough evidence to be used interchangeably. The FDA no longer recommends that an interchangeability statement be included in the label of the interchangeable biosimilar product, but rather that the designation be listed in the FDA Purple Book only. Instead, IC biosimilar labels will have the same biosimilarity statement as non-IC biosimilars.

US FDA Draft Guidance: Labeling for Biosimilar and Interchangeable Biosimilar Products (Sep 2023)[12]

For a biosimilar or an interchangeable biosimilar product, FDA recommends including a statement that the product is biosimilar to the reference product. The statement should be placed on the line immediately beneath the initial U.S. approval in the Highlights. The statement should read as follows: [BIOSIMILAR OR INTERCHANGEABLE BIOSIMILAR PRODUCT'S PROPRIETARY NAME (biosimilar or interchangeable biosimilar product's proper name)] is biosimilar to [REFERENCE PRODUCT'S PROPRIETARY NAME (reference product's proper name)].*

With more and more biosimilar products receiving the IC designation, it is becoming clear that IC has created more confusion than access to biosimilars. As such, FDA has supported a proposal in the FY 2025 Legislative Proposal to deem **all approved biosimilars to be interchangeable with their respective reference products.**[10]

FDA FY25 Legislative Proposal (Mar 2024)[10]

Eliminate the Statutory Distinction Between the Approval Standard for Biosimilar and Interchangeable Biosimilar Products and Deem that Approved Biosimilars are Interchangeable

The statutory distinction between biosimilars and interchangeable biosimilars has led to confusion and misunderstanding, including among patients and healthcare providers, about the safety and effectiveness of biosimilars and about whether interchangeable biosimilars are safer or more effective than other biosimilars. FDA is seeking to amend section 351 of the Public Health Service (PHS) Act to no longer include a separate statutory standard for a determination of interchangeability and to deem all approved biosimilars to be IC with their respective reference products.

IV. Biosimilar Deep Dive

2) Adalimumab Biosimilars Utilization

Payer Spotlight: Interview with Scripius on Adalimumab Biosimilar Adoption

Starting in early 2023, Scripius began a strategic shift in its approach to adopting adalimumab biosimilars. In Medicaid, they removed Humira on March 1, 2023 when only one biosimilar product was on the market. Medicare and half of their commercial business followed suit on January 1, 2024. The organization plans to remove Humira from their formulary for the rest of their commercial business on October 1, 2024. Scripius preferred biosimilar products including adalimumab-atto and adalimumab-bwwd. These actions represent an early and swift transition to adalimumab biosimilars. In this issue, we provide insights on the strategy from Scripius's AVP of Pharmacy Services, Matt Mitchell.

SCRIPIUS

Scripius is an Intermountain Health company, forged from Intermountain's health insurance division, Select Health. Based in Salt Lake City, Utah, Scripius combines Intermountain's 50 years' experience in healthcare and medication innovation with the 25 years' experience Select Health has in PBM management.

Matthew P. Mitchell,
PharmD, MBA, MHP, FAMCP is AVP, Pharmacy Services for Scripius, a full service, transparent PBM based in Utah. In his role, Dr. Mitchell chairs the P&T Committee and several other strategy and operational committees. He also sits on the AMCP Board of Directors and the editorial board for several peer-reviewed journals.

Payer Spotlight: Interview with Scripius on Adalimumab Biosimilar Adoption

What were the main barriers your organization faced when deciding to remove Humira from your formulary?	The biggest barrier when moving from Humira to biosimilars across all lines of business is the increase in workload for providers. • For **Commercial** business, a significant challenge is transitioning members from a copay assistance program associated with Humira to a copay assistance program associated with a biosimilar. In addition, PBMs and payers unfortunately also need to consider rebate revenue and rebate guarantees to downstream clients. • In **Medicare**, making a change was not as easy due to a more complex market and logistical difficulties with CMS filings. Despite the challenge, Scripius added adalimumab-atto and adalimumab-bwwd as preferred products while removing Humira effective January 1, 2024.
What measures were taken to support downstream physicians and patients in the transition to adalimumab biosimilars?	Scripius has had a working relationship with key providers for years. We have a lot of biosimilar experience with infliximab in addition to oncology treatment and oncology supportive care. This experience helped set the stage for early conversations about the pending adalimumab biosimilar opportunities. Information was shared with key stakeholders, including physicians, ambulatory pharmacists, and specialty pharmacists around potential savings opportunities as well as roll out conversion strategies. One tool that was created by a client, Intermountain Health, was a **collaborative practice agreement***. With the agreement in place, they were able to initiate a transition from the clinic or the specialty pharmacy directly to ease the transition process for patients. *A collaborative practice agreement is unique and arguably the most effective tool to easily promote biosimilars. It allows a pharmacy to swap to another biosimilar without a prescription from the provider. The CPA gives authorization to that pharmacist/pharmacy to make those specific changes on behalf of the provider.
What were the main drivers for your organization to remove Humira and move forward with a pro-biosimilar strategy?	There is no way around it, cost savings is the only reason to move forward with any biosimilar strategy. While Fee for Service Medicaid is different, Managed Medicaid plans almost always benefit from biosimilars due to low supplemental rebates available for reference brand drugs. Due to the upcoming change in Medicare with a maximum member contribution of $2,000.00, payers will concentrate on low-cost specialty drugs, such as biosimilars. Commercial business is a little more complex because more real-time, mid-year changes are options. Scripius will continue to capitalize on its ability to be very agile to optimize biosimilar options when there are savings available.

Payer Spotlight: Interview with Scripius on Adalimumab Biosimilar Adoption

How effective has your organization been in the transition to adalimumab biosimilars?	We have been very successful. Scripius worked with one of its clients, Select Health, to quickly transition 98% of their Humira prescriptions to one of the adalimumab biosimilars. We believe this was the fastest transition in the country. For our Commercial business that transitioned, biosimilars make up 99.9% of the market share of adalimumab products.
What key lessons has your organization learned from implementing this strategy?	A key lesson is that it is important to over communicate a decision to move to biosimilars due to differences of strategy across different lines of business. Providers have the difficulty of seeing patients from a large variety of insurers so keeping up with different strategies is extremely difficult. Even more communication and early coordination with providers and pharmacy services would have made transitions quicker and smoother.
Based on this experience, is your organization more prepared and likely to adopt biosimilar strategies in the future?	Absolutely! We have been able to improve operational efficiencies with the adalimumab biosimilar experience. Manufacturers, PBMs, and payers have been able to explore different strategy opportunities over the last 18 months. I expect biosimilar adoption to increase going forward with adalimumab, tocilizumab, ustekinumab as well as more upcoming opportunities.
What advice would you share with other payers who are hesitating to make a decision to transition to biosimilars?	First, the net cost needs to make sense to make a switch to biosimilars. Manufacturers also need to have adequate supply. Secondly, outlining processes early to work with all stakeholders to optimize a quick transition is necessary.

Reference

1. Biosimilar Product Information. FDA. (Mar 2024). Retrieved Mar 2024 from https://www.fda.gov/drugs/biosimilars/biosimilar-product-information
2. HCPCS Unit WAC Price. Buy and Bill. (Jun 2024). Retrieved Jun 2024 from https://buyandbill.com/
3. Medicare part B Drug Average Sales Price. CMS. (Jun 2024). Retrieved Jun 2024 from https://www.cms.gov/medicare/payment/part-b-drugs/asp-pricing-files
4. NADAC (National Average Drug Acquisition Cost) 2021-2023. Data.Medicaid. (Dec 2023). Retrieved Dec 2023 from https://data.medicaid.gov/nadac
5. SMART Global MIDAS. IQVIA. (Jan 2017-Mar 2024). Retrieved Jun 2024.
6. Weekly Sales Perspectives. IQVIA. (Jan 2023-May 2024). Retrieved Mar 2024.
7. US Food and Drug Administration. Purple Book: Database of Licensed Biological Products. Retrieved Jun 2024 from https://purplebooksearch.fda.gov/
8. US Congress. (2010, March 22). H.R. 3590 (ENR). Patient Protection and Affordable Care Act. U.S. Government Publishing Office. https://www.govinfo.gov/app/details/BILLS-111hr3590enr.
9. US Food and Drug Administration. First Interchangeable Exclusivity Expiration Memorandum. Retrieved Jun 2024 from https://www.fda.gov/media/173749/download
10. US Food and Drug Administration. FY25 Legislative Proposals. Retrieved Jun 2024 from https://www.fda.gov/media/176924/download
11. US Food and Drug Administration. Draft Guidance for Industry: Considerations in Demonstrating Interchangeability With a Reference Product: Update. 2024. Retrieved Jun 2024 from https://www.fda.gov/media/179456/download
12. US Food and Drug Administration. Draft Guidance for Industry: Labeling for Biosimilar and Interchangeable Biosimilar Products. 2023. Retrieved Jun 2024 from https://www.fda.gov/media/172170/download

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