5.14 ADALIMUMAB
Injection 20 mg in 0.2 mL pre-filled syringe,
Injection 80 mg in 0.8 mL pre-filled syringe,
Injection 80 mg in 0.8 mL cartridge,
Humira®, AbbVie Pty Ltd

1. Purpose of Application
	1. The minor submission requested Authority Required listings for two new strengths and forms of adalimumab, 20 mg/ 0.2 mL in pre-filled syringe (PFS), 80 mg in 0.8 mL in PFS and cartridge.
	2. The submission also requested to change the current Section 100 Highly Specialised Drugs Program (HSDP) – Public and Private Hospital listings for severe active juvenile idiopathic arthritis (JIA) to the General Schedule (at the same authority level).
2. Requested listing
	1. The submission requested no changes to the restrictions for each indication, as follows:
3. Humira®20mg/0.2mL: the restriction wording, maximum quantities and number of repeats would be identical to the currently listed adalimumab 20mg/0.4mL.
4. Humira®80mg/0.8: The requested listings are intended to have the same restrictions as the currently PBS-listed six pack presentation of 40mg/0.8mL for the same indications with adjusted maximum quantities to account for the increased dosage to ensure the same duration of supply as the current higher quantity 40 mg/ 0.8mL syringe pack.
	1. The submission also requested moving the current restriction for JIA to a general schedule listing, with no change to the restriction wording.
	2. The Sponsor requested listings for the new forms and strengths of adalimumab only for the indications in which these strengths are normally used.The requested indications for these new forms and strengths are outlined in the table below:

Table 1: Abridged essential elements of the requested listing for new formulations of Humira®

| **Indication** | **Form** | **Strength** | **Pack size** | **Max qty** | **Associated restriction text****(PBS item)** |
| --- | --- | --- | --- | --- | --- |
| Severe Crohn’s disease | Syringes | 20 mg/0.2 mL | 2 pack | 1 | 10389T10396E10422M |
| Moderate to severe ulcerative colitis | Syringes | 20 mg/0.2 mL | 2 pack | 1 | 11121H11127P |
| Severe active juvenile idiopathic arthritis | Syringes | 20 mg/0.2 mL | 2 pack | 1 | 9661L; 9678J |
| Severe Crohn disease (paediatric) | Syringes | 80 mg/0.8 mL | 1 pack | 3 | 10404N |
| Moderate to severe ulcerative colitis | Syringes | 80 mg/0.8 mL | 1 pack | 3 | 10972L |
| Fistulising Crohn’s disease | Syringes | 80 mg/0.8 mL | 1 pack | 3 | 8961P |
| Severe Crohn’s disease | Syringes | 80 mg/0.8 mL | 1 pack | 3 | 9186L |
| Chronic severe plaque psoriasis | Syringes | 80 mg/0.8 mL | 1 pack | 1 | 9425C |
| Moderate to severe hidradenitis suppurativa  | Syringes  | 80 mg/0.8 mL | 1 pack | 3 | 11132X |
| Severe Crohn disease (paediatric) | cartridge | 80 mg/0.8 mL | 1 pack | 3 | 10397F |
| Moderate to severe ulcerative colitis | cartridge | 80 mg/0.8 mL | 1 pack | 3 | 10945C |
| Moderate to severe hidradenitis suppurativa  | cartridge | 80 mg/0.8 mL | 1 pack | 3 | 11132X |
| Fistulising Crohn’s disease  | cartridge | 80 mg/0.8 mL | 1 pack | 3 | 8962Q |
| Severe Crohn’s disease  | cartridge | 80 mg/0.8 mL | 1 pack | 3 | 9187M |
| Chronic severe plaque psoriasis | cartridge | 80 mg/0.8 mL | 1 pack | 1 | 9426D |

Modified from table 1 and 2 of the submission. Source page 4 of submission, and restriction template of the submission

* 1. The PBAC noted the existing adalimumab 20 mg/0.4 mL (PBS item 9661L and 9678J) and 40 mg/0.8 mL (PBS item 9662M and 9679K) forms are currently PBS listed under Section 100 HSD Authority Required listings for the treatment of severe active JIA. The submission requested to change these listings to General Schedule Authority Required listings on the basis of maintaining consistency with other paediatric indications that adalimumab is PBS listed for.

*For more detail on PBAC’s view, see section 6 PBAC outcome.*

1. Background
	1. Adalimumab (Humira® 20mg/0.2mL and Humira® 80mg/0.8mL) are TGA registered on the 23 February 2018 and 3 January 2018 respectively under the same conditions as the existing adalimumab forms and strengths.
	2. The TGA concluded that the benefit-risk balance of the new formulations was considered favourable and the bioequivalence of these formulations was satisfactorily established.

*For more detail on PBAC’s view, see section 6 PBAC outcome.*

1. Comparator
	1. The minor submission nominated the following:
		* the comparator for Humira® 20mg/0.2mL is the currently PBS listed Humira® 20mg/0.4mL PFS. There are no proposed changes to the current restriction; and
		* the comparator for the 80mg/0.8mL strength is the currently PBS listed adalimumab (Humira®) 40mg/0.8mL PFS and cartridges. A single 80 mg dose is equivalent to two 40mg PFS or pens currently listed on the PBS.
	2. The PBAC considered that the proposed comparators were appropriate.

*For more detail on PBAC’s view, see section 6 PBAC outcome.*

# Consideration of the evidence

***Sponsor hearing***

* 1. There was no hearing for this item as it was a minor submission.

***Consumer comments***

* 1. The PBAC noted that no consumer comments were received for this item.

## Clinical trials

* 1. As a minor submission, no new clinical trials were presented in the submission.

## Economic analysis

* 1. As a minor submission, there was no economic comparison presented.

## Estimated PBS usage & financial implications

* 1. The minor submission estimated there to be no financial implications to the PBS as the submission claimed that the new formulation to only substitute for existing forms of adalimumab at the same price.
	2. The PBAC noted the proposed dispensed prices for maximum quantities (DPMQs) for some of the requested listings are lower than current listings. In the pre-PBAC response, sponsor further explained the methodology in calculating the proposed DPMQs.

Table 2: Calculation of wholesaler and pharmacy mark-ups based on July 2018 Humira ex-man price

| **Form** | **MQ** | **Indication**  | **AEMP ($)** | **Wholesaler mark-up ($)** | **Price to Pharmacist ($)** | **Pharmacy mark-up + dispensing fee($)** | **DPMQ($)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Current Formulation** |
| Injection 40 mg in 0.8 mL pre-filled pen/syringe X 2 | 1 | All indications including Ps induction  | ''''''''''''''''''''''' | '''''''''''''' | '''''''''''''''''''''' | '''''''''''' | 1,269.60 |
| Injection 40 mg in 0.8 mL pre-filled pen/syringe X 6 | 1 | Induction for pCD, CD, fCD, UC and HS | '''''''''''''''''''' | ''''''''''''''' | ''''''''''''''''''' | ''''''''''''' | 3,606.66 |
| **New Formulation** |  |
| Injection 80 mg in 0.8 mL pre-filled pen/syringe X 1 | 1 | Induction for Ps  | ''''''''''''''''''''' | ''''''''''''' | ''''''''''''''''''''''' | '''''''''''''' | '''''''''''''''''''''' |
| Injection 80 mg in 0.8 mL pre-filled pen/syringe X 1 | 3 | Induction for pCD, CD, fCD, UC and HS | '''''''''''''''''''' | '''''''''''' | ''''''''''''''''''''' | '''''''''''''' | ''''''''''''''''''''' |

* 1. Concerning the request of moving the severe active JIA indication of adalimumab to S85 General Schedule, the DPMQ will increase if the ex-manufacturer price (AEMP) remains unchanged.
	2. The PBAC recalled that it previously advised that, where a recommendation is made to move a drug from S100 to S85, the cost of the increased pharmacy remuneration should be borne by the manufacturer.
	3. In the pre-PBAC response, the sponsor did not agree with reducing the ex‑manufacturer price to account for the increased pharmacy remuneration payments. The sponsor proposed that if the PBAC requires the additional cost of the mark-ups to be borne by the manufacturer, the listing should remain as S100 for the JIA indication.

*For more detail on PBAC’s view, see section 6 PBAC outcome.*

# PBAC Outcome

* 1. The PBAC recommended Authority Required listings for two new forms and strengths of adalimumab as follows:
		+ 20 mg /0.2 mL in pre-filled syringe (PFS) for the treatment of severe Crohn’s disease, moderate to severe ulcerative colitis and severe active juvenile idiopathic arthritis; and
		+ 80 mg /0.8 mL in PFS and pre-filled cartridge for the treatment of severe Crohn disease (paediatric), moderate to severe ulcerative colitis, fistulising Crohn’s disease, severe Crohn’s disease, moderate to severe hidradenitis suppurativa and chronic severe plaque psoriasis.
	2. In making the recommendation, the PBAC noted that the 80 mg/0.8 mL forms of adalimumab have different strength and pack sizes to its comparator (adalimumab 40 mg/0.8 mL syringe), and advised that the new forms should be cost neutral listings with the application of different mark-ups.
	3. The PBAC considered that the request to amend the juvenile idiopathic arthritis (JIA) listings to General Schedule is not appropriate due to the unintended implications for non-PBS reform States that may limit the ability of some clinicians to prescribe adalimumab for JIA.
	4. The PBAC noted that the current Section 100 Highly Specialised Drug program (S100 HSD) listings for JIA are restricted to juvenile patients being treated by a paediatric rheumatologist or undergoing treatment under the supervision of a paediatric rheumatology treatment centre. The information published by the Australian Rheumatology Association (ARA) indicated that most paediatric rheumatology treatment centres are located in a public hospital setting (https://rheumatology.org.au/patients/aprg.asp).
	5. The PBAC noted that due to the paucity of training positions in Australia, the limited number of trained paediatric rheumatologists are often located in public hospitals and may not operate in a private setting, limiting their ability to prescribe General Schedule medicines in non-PBS reform States. As a result, prescribers in public hospitals (and presumably, associated paediatric rheumatology centres) in NSW and ACT may not be able to supply adalimumab for JIA if it is moved to the General Schedule.
	6. The PBAC also noted that the S100 HSD listings are currently outside of the PBS Reform Arrangement (the Reforms). Under the Reforms, public hospitals can prescribe and dispense PBS medicines from the S85 General Schedule and Section 100 (efficient funding of chemotherapy) to eligible patients up to one month’s of supply. Not all States currently participate in the Reforms.
	7. The PBAC considered that adalimumab 20 mg/ 0.2 mL PFS should be considered equivalent for the purposes of substitution (i.e. ‘a’ flagged in the Schedule) to adalimumab 20 mg/0.4 mL PFS. The PBAC noted there were no differences in delivery systems. The PBAC considered that adalimumab 80 mg in 0.8 mL in PFS and cartridge should not be considered equivalent for the purposes of substitution (i.e. ‘a’ flagged in the Schedule) to each other or to any other forms of adalimumab on the PBS due to the different delivery devices.
	8. The PBAC noted that new forms of adalimumab should not be exempt from the Early Supply Rule as the committee previously considered that adalimumab should not be exempt from the early supply rule.
	9. The PBAC noted that adalimumab is not suitable for prescribing by nurse practitioners.
	10. The PBAC noted that this submission is not eligible for an Independent Review as it received a positive recommendation.

**Outcome:**

Recommended

# Recommended listing

Add new item:

Abridged listing for new formulations of Humira®

| **Indication** | **Form** | **Strength** | **Pack size** | **Max qty** | **Associated restriction text****(PBS item)** |
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| Moderate to severe ulcerative colitis | Syringes | 20 mg/0.2 mL | 2 pack | 1 | 11121H11127P |
| Severe active juvenile idiopathic arthritis | Syringes | 20 mg/0.2 mL | 2 pack | 1 | 9661L; 9678J |
| Severe Crohn disease (paediatric) | Syringes | 80 mg/0.8 mL | 1 pack | 3 | 10404N |
| Moderate to severe ulcerative colitis | Syringes | 80 mg/0.8 mL | 1 pack | 3 | 10972L |
| Fistulising Crohn’s disease | Syringes | 80 mg/0.8 mL | 1 pack | 3 | 8961P |
| Severe Crohn’s disease | Syringes | 80 mg/0.8 mL | 1 pack | 3 | 9186L |
| Chronic severe plaque psoriasis | Syringes | 80 mg/0.8 mL | 1 pack | 1 | 9425C |
| Moderate to severe hidradenitis suppurativa  | Syringes  | 80 mg/0.8 mL | 1 pack | 3 | 11132X |
| Severe Crohn disease (paediatric) | cartridge | 80 mg/0.8 mL | 1 pack | 3 | 10397F |
| Moderate to severe ulcerative colitis | cartridge | 80 mg/0.8 mL | 1 pack | 3 | 10945C |
| Moderate to severe hidradenitis suppurativa  | cartridge | 80 mg/0.8 mL | 1 pack | 3 | 11132X |
| Fistulising Crohn’s disease  | cartridge | 80 mg/0.8 mL | 1 pack | 3 | 8962Q |
| Severe Crohn’s disease  | cartridge | 80 mg/0.8 mL | 1 pack | 3 | 9187M |
| Chronic severe plaque psoriasis | cartridge | 80 mg/0.8 mL | 1 pack | 1 | 9426D |

# Context for Decision

The PBAC helps decide whether and, if so, how medicines should be subsidised in Australia. It considers submissions in this context. A PBAC decision not to recommend listing or not to recommend changing a listing does not represent a final PBAC view about the merits of the medicine. A company can resubmit to the PBAC or seek independent review of the PBAC decision.

# Sponsor’s Comment

The sponsor had no comment.