

# Orencia® (Abatacept) Injection for Intravenous Infusion

Policy Number: CS2022D0039W  
Effective Date: August 1, 2022

[Instructions for Use](#)

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|---|
| Commercial Policy   |
| <ul style="list-style-type: none"> <li><a href="#">Orencia® (Abatacept) Injection for Intravenous Infusion</a></li> </ul> |

## Application

This Medical Benefit Drug Policy does not apply to the states listed below; refer to the state-specific policy/guideline, if noted:

| State          | Policy/Guideline  |
|----------------|---|
| Indiana        | <a href="#">Immunomodulators for Inflammatory Conditions (for Indiana Only)</a> |
| Kansas         | Refer to the state’s Medicaid clinical policy                                   |
| Louisiana      | Refer to the state’s Medicaid clinical policy                                   |
| North Carolina | None  |
| Pennsylvania   | Refer to the state’s Medicaid clinical policy                                   |
| Texas          | Refer to the state’s Medicaid clinical policy                                   |
| Washington     | Refer to the state’s Medicaid clinical policy                                   |

## Coverage Rationale

This policy refers to Orencia (abatacept) injection for intravenous infusion. Orencia (abatacept) for self-administered subcutaneous injection is obtained under the pharmacy benefit.

Orencia is proven and medically necessary for the treatment of:

- Polyarticular juvenile idiopathic arthritis when all of the following criteria are met:<sup>2,5,15,20</sup>
  - For initial therapy, all of the following:
    - Diagnosis of moderately to severely active polyarticular juvenile idiopathic arthritis (PJIA); and Orencia is initiated and titrated according to U.S. Food and Drug Administration (FDA) labeled dosing for polyarticular juvenile idiopathic arthritis; and
    - Patient is not receiving Orencia in combination with either of the following:
      - Biologic disease-modifying antirheumatic drug (DMARD) [e.g., Enbrel (etanercept), Humira (adalimumab), Cimzia (certolizumab), Simponi (golimumab)]
      - Janus kinase inhibitor [e.g., Xeljanz (tofacitinib), Olumiant (baricitinib)]<sup>18</sup>

- and
  - Prescribed by or in consultation with a rheumatologist; and
  - Initial authorization is for no more than 12 months
- For continuation of therapy, all of the following:
  - Patient has previously received Orencia injection for intravenous infusion; and
  - Documentation of a positive clinical response; and
  - Orencia is dosed according to FDA labeled dosing for polyarticular juvenile idiopathic arthritis; and
  - Patient is not receiving Orencia in combination with either of the following:
    - Biologic disease-modifying antirheumatic drug (DMARD) [e.g., Enbrel (etanercept), Humira (adalimumab), Cimzia (certolizumab), Simponi (golimumab)]
    - Janus kinase inhibitor [e.g., Xeljanz (tofacitinib), Olumiant (baricitinib)]
  - and
  - Authorization is for no more than 12 months
- Rheumatoid arthritis when all of the following criteria are met:<sup>1,5,15,16,21</sup>
  - For initial therapy, all of the following:
    - Diagnosis of moderately to severely active rheumatoid arthritis (RA); and
    - One of the following:
      - History of failure or intolerance to a 3-month trial of one non-biologic disease modifying anti-rheumatic drug (DMARD) (e.g., methotrexate, leflunomide, sulfasalazine, hydroxychloroquine) at maximally indicated doses unless contraindicated or clinically significant adverse effects are experienced; or
      - Patient has been previously treated with a biologic or targeted synthetic DMARD FDA-approved for the treatment of rheumatoid arthritis [e.g., Cimzia (certolizumab), Humira (adalimumab), Simponi (golimumab), Olumiant (baricitinib), Rinvoq (upadacitinib), Xeljanz (tofacitinib)]; or
      - Patient is currently on Orencia;
    - and
    - Orencia is initiated and titrated according to FDA labeled dosing for rheumatoid arthritis; and
    - Patient is not receiving Orencia in combination with either of the following:
      - Biologic DMARD [e.g., Enbrel (etanercept), Humira (adalimumab), Cimzia (certolizumab), Simponi (golimumab)]
      - Janus kinase inhibitor [e.g., Xeljanz (tofacitinib), Olumiant (baricitinib)]<sup>18</sup>
    - and
    - Prescribed by or in consultation with a rheumatologist; and
    - Initial authorization is for no more than 12 months
  - For continuation of therapy, all of the following:
    - Patient has previously received Orencia injection for intravenous infusion; and
    - Documentation of a positive clinical response; and
    - Orencia is dosed according to FDA labeled dosing for rheumatoid arthritis; and
    - Patient is not receiving Orencia in combination with either of the following:
      - Biologic DMARD [e.g., Enbrel (etanercept), Humira (adalimumab), Cimzia (certolizumab), Simponi (golimumab)]
      - Janus kinase inhibitor [e.g., Xeljanz (tofacitinib), Olumiant (baricitinib)]
    - and
    - Authorization is for no more than 12 months
- Psoriatic arthritis when all of the following criteria are met:
  - For initial therapy, all of the following:
    - Diagnosis of active psoriatic arthritis (PsA); and
    - One of the following:
      - History of failure to a 3 month trial of methotrexate at the maximally indicated dose, unless contraindicated or clinically significant adverse effects are experienced; or
      - Patient has been previously treated with a biologic or targeted synthetic DMARD FDA-approved for the treatment of psoriatic arthritis [e.g., Cimzia (certolizumab), Humira (adalimumab), Simponi (golimumab), Stelara (ustekinumab), Tremfya (guselkumab), Xeljanz (tofacitinib), Otezla (apremilast)]; or
      - Patient is currently on Orencia

- and
  - Orencia is initiated and titrated according to FDA labeled dosing for psoriatic arthritis; and
  - Patient is not receiving Orencia in combination with any of the following:
    - Biologic DMARD [e.g., Enbrel (etanercept), Humira (adalimumab), Cimzia (certolizumab), Simponi (golimumab)]
    - Janus kinase inhibitor [e.g., Xeljanz (tofacitinib), Olumiant (baricitinib)]<sup>18</sup>
    - Phosphodiesterase 4 (PDE4) inhibitor [e.g., Otezla (apremilast)]
  - and
  - Prescribed by or in consultation with one of the following:
    - Rheumatologist
    - Dermatologist
  - and
  - Initial authorization is for no more than 12 months
- For continuation of therapy, all of the following:
  - Patient has previously received Orencia injection for intravenous infusion; and
  - Documentation of a positive clinical response; and
  - Orencia is dosed according to FDA labeled dosing for psoriatic arthritis; and
  - Patient is not receiving Orencia in combination with any of the following:
    - Biologic DMARD [e.g., Enbrel (etanercept), Humira (adalimumab), Cimzia (certolizumab), Simponi (golimumab)]
    - Janus kinase inhibitor [e.g., Xeljanz (tofacitinib), Olumiant (baricitinib)]
    - Phosphodiesterase 4 (PDE4) inhibitor [e.g., Otezla (apremilast)]
  - and
  - Authorization is for no more than 12 months
- Chronic graft-versus-host disease (GVHD) when all of the following criteria are met:
  - For initial therapy, all of the following:
    - Diagnosis of steroid-refractory chronic GVHD; and
    - One of the following:
      - Patient is receiving Orencia in combination with systemic corticosteroids
      - Patient is intolerant to systemic corticosteroid therapy
    - and
    - Initial authorization is for no more than 12 months
  - For continuation of therapy, all of the following:
    - Documentation of positive clinical response; and
    - Patient continues to experience chronic GVHD; and
    - One of the following:
      - Patient is receiving Orencia in combination with systemic corticosteroids
      - Patient is intolerant to systemic corticosteroid therapy
      - Patient has been successfully tapered off of corticosteroid therapy
    - and
    - Authorization is for no more than 12 months
- Acute graft-versus-host disease (aGVHD) when all of the following criteria are met:
  - Patient is at least 2 years old; and
  - One of the following:
    - Patient is undergoing hematopoietic stem cell transplantation (HSCT) from a matched donor
    - Patient is undergoing HSCT from a 1 allele-mismatched unrelated donor
  - and
  - Patient is receiving Orencia in combination with a calcineurin inhibitor; and
  - Patient is receiving Orencia in combination with methotrexate
  - Authorization is for no more than 4 doses
- Immune checkpoint inhibitor-related toxicities when all of the following criteria are met:<sup>67</sup>
  - Patient has recently received checkpoint inhibitor therapy [e.g., Keytruda (Pembrolizumab), Opdivo (Nivolumab)]; and

- Diagnosis of severe (G3) or life threatening (G4) immunotherapy-related myocarditis, pericarditis, arrhythmias, or impaired ventricular function, or conduction abnormalities; and
- No improvement of toxicity within 24 hours of starting pulse-dose methylprednisolone; and
- History of failure, contraindication, or intolerance to infliximab (e.g., Inflectra, Remicade); and
- Authorization is for no more than 4 doses

Orencia is unproven and not medically necessary for the treatment of:

- Multiple sclerosis
- Systemic lupus erythematosus
- Uveitis associated with Behçet's disease

## Applicable Codes

The following list(s) of procedure codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by federal, state, or contractual requirements and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

| HCPCS Code | Description                 |
|------------|-----------------------------|
| J0129      | Injection, abatacept, 10 mg |

| Diagnosis Code | Description  |
|----------------|--|
| D89.811        | Chronic graft-versus-host disease  |
| D89.812        | Acute on chronic graft versus host disease: (acute exacerbation of a chronic GVHD status, or acute manifestation of a preexisting GVHD associated condition) |
| L40.50         | Arthropathic psoriasis, unspecified  |
| L40.51         | Distal interphalangeal psoriatic arthropathy   |
| L40.52         | Psoriatic arthritis mutilans   |
| L40.53         | Psoriatic spondylitis  |
| L40.54         | Psoriatic juvenile arthropathy   |
| L40.59         | Other psoriatic arthropathy  |
| M05.00         | Felty's syndrome, unspecified site   |
| M05.011        | Felty's syndrome, right shoulder   |
| M05.012        | Felty's syndrome, left shoulder  |
| M05.019        | Felty's syndrome, unspecified shoulder   |
| M05.021        | Felty's syndrome, right elbow  |
| M05.022        | Felty's syndrome, left elbow   |
| M05.029        | Felty's syndrome, unspecified elbow  |
| M05.031        | Felty's syndrome, right wrist  |
| M05.032        | Felty's syndrome, left wrist   |
| M05.039        | Felty's syndrome, unspecified wrist  |
| M05.041        | Felty's syndrome, right hand   |
| M05.042        | Felty's syndrome, left hand  |
| M05.049        | Felty's syndrome, unspecified hand   |
| M05.051        | Felty's syndrome, right hip  |
| M05.052        | Felty's syndrome, left hip   |

| Diagnosis Code | Description   |
|----------------|---|
| M05.059        | Felty's syndrome, unspecified hip   |
| M05.061        | Felty's syndrome, right knee  |
| M05.062        | Felty's syndrome, left knee   |
| M05.069        | Felty's syndrome, unspecified knee  |
| M05.071        | Felty's syndrome, right ankle and foot  |
| M05.072        | Felty's syndrome, left ankle and foot   |
| M05.079        | Felty's syndrome, unspecified ankle and foot                                  |
| M05.09         | Felty's syndrome, multiple sites  |
| M05.20         | Rheumatoid vasculitis with rheumatoid arthritis of unspecified site           |
| M05.211        | Rheumatoid vasculitis with rheumatoid arthritis of right shoulder             |
| M05.212        | Rheumatoid vasculitis with rheumatoid arthritis of left shoulder              |
| M05.219        | Rheumatoid vasculitis with rheumatoid arthritis of unspecified shoulder       |
| M05.221        | Rheumatoid vasculitis with rheumatoid arthritis of right elbow                |
| M05.222        | Rheumatoid vasculitis with rheumatoid arthritis of left elbow                 |
| M05.229        | Rheumatoid vasculitis with rheumatoid arthritis of unspecified elbow          |
| M05.231        | Rheumatoid vasculitis with rheumatoid arthritis of right wrist                |
| M05.232        | Rheumatoid vasculitis with rheumatoid arthritis of left wrist                 |
| M05.239        | Rheumatoid vasculitis with rheumatoid arthritis of unspecified wrist          |
| M05.241        | Rheumatoid vasculitis with rheumatoid arthritis of right hand                 |
| M05.242        | Rheumatoid vasculitis with rheumatoid arthritis of left hand                  |
| M05.249        | Rheumatoid vasculitis with rheumatoid arthritis of unspecified hand           |
| M05.251        | Rheumatoid vasculitis with rheumatoid arthritis of right hip                  |
| M05.252        | Rheumatoid vasculitis with rheumatoid arthritis of left hip                   |
| M05.259        | Rheumatoid vasculitis with rheumatoid arthritis of unspecified hip            |
| M05.261        | Rheumatoid vasculitis with rheumatoid arthritis of right knee                 |
| M05.262        | Rheumatoid vasculitis with rheumatoid arthritis of left knee                  |
| M05.269        | Rheumatoid vasculitis with rheumatoid arthritis of unspecified knee           |
| M05.271        | Rheumatoid vasculitis with rheumatoid arthritis of right ankle and foot       |
| M05.272        | Rheumatoid vasculitis with rheumatoid arthritis of left ankle and foot        |
| M05.279        | Rheumatoid vasculitis with rheumatoid arthritis of unspecified ankle and foot |
| M05.29         | Rheumatoid vasculitis with rheumatoid arthritis of multiple sites             |
| M05.30         | Rheumatoid heart disease with rheumatoid arthritis of unspecified site        |
| M05.311        | Rheumatoid heart disease with rheumatoid arthritis of right shoulder          |
| M05.312        | Rheumatoid heart disease with rheumatoid arthritis of left shoulder           |
| M05.319        | Rheumatoid heart disease with rheumatoid arthritis of unspecified shoulder    |
| M05.321        | Rheumatoid heart disease with rheumatoid arthritis of right elbow             |
| M05.322        | Rheumatoid heart disease with rheumatoid arthritis of left elbow              |
| M05.329        | Rheumatoid heart disease with rheumatoid arthritis of unspecified elbow       |
| M05.331        | Rheumatoid heart disease with rheumatoid arthritis of right wrist             |
| M05.332        | Rheumatoid heart disease with rheumatoid arthritis of left wrist              |
| M05.339        | Rheumatoid heart disease with rheumatoid arthritis of unspecified wrist       |
| M05.341        | Rheumatoid heart disease with rheumatoid arthritis of right hand              |

| Diagnosis Code | Description  |
|----------------|--|
| M05.342        | Rheumatoid heart disease with rheumatoid arthritis of left hand                  |
| M05.349        | Rheumatoid heart disease with rheumatoid arthritis of unspecified hand           |
| M05.351        | Rheumatoid heart disease with rheumatoid arthritis of right hip                  |
| M05.352        | Rheumatoid heart disease with rheumatoid arthritis of left hip                   |
| M05.359        | Rheumatoid heart disease with rheumatoid arthritis of unspecified hip            |
| M05.361        | Rheumatoid heart disease with rheumatoid arthritis of right knee                 |
| M05.362        | Rheumatoid heart disease with rheumatoid arthritis of left knee                  |
| M05.369        | Rheumatoid heart disease with rheumatoid arthritis of unspecified knee           |
| M05.371        | Rheumatoid heart disease with rheumatoid arthritis of right ankle and foot       |
| M05.372        | Rheumatoid heart disease with rheumatoid arthritis of left ankle and foot        |
| M05.379        | Rheumatoid heart disease with rheumatoid arthritis of unspecified ankle and foot |
| M05.39         | Rheumatoid heart disease with rheumatoid arthritis of multiple sites             |
| M05.40         | Rheumatoid myopathy with rheumatoid arthritis of unspecified site                |
| M05.411        | Rheumatoid myopathy with rheumatoid arthritis of right shoulder                  |
| M05.412        | Rheumatoid myopathy with rheumatoid arthritis of left shoulder                   |
| M05.419        | Rheumatoid myopathy with rheumatoid arthritis of unspecified shoulder            |
| M05.421        | Rheumatoid myopathy with rheumatoid arthritis of right elbow                     |
| M05.422        | Rheumatoid myopathy with rheumatoid arthritis of left elbow                      |
| M05.429        | Rheumatoid myopathy with rheumatoid arthritis of unspecified elbow               |
| M05.431        | Rheumatoid myopathy with rheumatoid arthritis of right wrist                     |
| M05.432        | Rheumatoid myopathy with rheumatoid arthritis of left wrist                      |
| M05.439        | Rheumatoid myopathy with rheumatoid arthritis of unspecified wrist               |
| M05.441        | Rheumatoid myopathy with rheumatoid arthritis of right hand                      |
| M05.442        | Rheumatoid myopathy with rheumatoid arthritis of left hand                       |
| M05.449        | Rheumatoid myopathy with rheumatoid arthritis of unspecified hand                |
| M05.451        | Rheumatoid myopathy with rheumatoid arthritis of right hip                       |
| M05.452        | Rheumatoid myopathy with rheumatoid arthritis of left hip                        |
| M05.459        | Rheumatoid myopathy with rheumatoid arthritis of unspecified hip                 |
| M05.461        | Rheumatoid myopathy with rheumatoid arthritis of right knee                      |
| M05.462        | Rheumatoid myopathy with rheumatoid arthritis of left knee                       |
| M05.469        | Rheumatoid myopathy with rheumatoid arthritis of unspecified knee                |
| M05.471        | Rheumatoid myopathy with rheumatoid arthritis of right ankle and foot            |
| M05.472        | Rheumatoid myopathy with rheumatoid arthritis of left ankle and foot             |
| M05.479        | Rheumatoid myopathy with rheumatoid arthritis of unspecified ankle and foot      |
| M05.49         | Rheumatoid myopathy with rheumatoid arthritis of multiple sites                  |
| M05.50         | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified site          |
| M05.511        | Rheumatoid polyneuropathy with rheumatoid arthritis of right shoulder            |
| M05.512        | Rheumatoid polyneuropathy with rheumatoid arthritis of left shoulder             |
| M05.519        | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified shoulder      |
| M05.521        | Rheumatoid polyneuropathy with rheumatoid arthritis of right elbow               |
| M05.522        | Rheumatoid polyneuropathy with rheumatoid arthritis of left elbow                |
| M05.529        | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified elbow         |

| Diagnosis Code | Description  |
|----------------|--|
| M05.531        | Rheumatoid polyneuropathy with rheumatoid arthritis of right wrist                                   |
| M05.532        | Rheumatoid polyneuropathy with rheumatoid arthritis of left wrist                                    |
| M05.539        | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified wrist                             |
| M05.541        | Rheumatoid polyneuropathy with rheumatoid arthritis of right hand                                    |
| M05.542        | Rheumatoid polyneuropathy with rheumatoid arthritis of left hand                                     |
| M05.549        | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hand                              |
| M05.551        | Rheumatoid polyneuropathy with rheumatoid arthritis of right hip                                     |
| M05.552        | Rheumatoid polyneuropathy with rheumatoid arthritis of left hip                                      |
| M05.559        | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hip                               |
| M05.561        | Rheumatoid polyneuropathy with rheumatoid arthritis of right knee                                    |
| M05.562        | Rheumatoid polyneuropathy with rheumatoid arthritis of left knee                                     |
| M05.569        | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified knee                              |
| M05.571        | Rheumatoid polyneuropathy with rheumatoid arthritis of right ankle and foot                          |
| M05.572        | Rheumatoid polyneuropathy with rheumatoid arthritis of left ankle and foot                           |
| M05.579        | Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified ankle and foot                    |
| M05.59         | Rheumatoid polyneuropathy with rheumatoid arthritis of multiple sites                                |
| M05.60         | Rheumatoid arthritis of unspecified site with involvement of other organs and systems                |
| M05.611        | Rheumatoid arthritis of right shoulder with involvement of other organs and systems                  |
| M05.612        | Rheumatoid arthritis of left shoulder with involvement of other organs and systems                   |
| M05.619        | Rheumatoid arthritis of unspecified shoulder with involvement of other organs and systems            |
| M05.621        | Rheumatoid arthritis of right elbow with involvement of other organs and systems                     |
| M05.622        | Rheumatoid arthritis of left elbow with involvement of other organs and systems                      |
| M05.629        | Rheumatoid arthritis of unspecified elbow with involvement of other organs and systems               |
| M05.631        | Rheumatoid arthritis of right wrist with involvement of other organs and systems                     |
| M05.632        | Rheumatoid arthritis of left wrist with involvement of other organs and systems                      |
| M05.639        | Rheumatoid arthritis of unspecified wrist with involvement of other organs and systems               |
| M05.641        | Rheumatoid arthritis of right hand with involvement of other organs and systems                      |
| M05.642        | Rheumatoid arthritis of left hand with involvement of other organs and systems                       |
| M05.649        | Rheumatoid arthritis of unspecified hand with involvement of other organs and systems                |
| M05.651        | Rheumatoid arthritis of right hip with involvement of other organs and systems                       |
| M05.652        | Rheumatoid arthritis of left hip with involvement of other organs and systems                        |
| M05.659        | Rheumatoid arthritis of unspecified hip with involvement of other organs and systems                 |
| M05.661        | Rheumatoid arthritis of right knee with involvement of other organs and systems                      |
| M05.662        | Rheumatoid arthritis of left knee with involvement of other organs and systems                       |
| M05.669        | Rheumatoid arthritis of unspecified knee with involvement of other organs and systems                |
| M05.671        | Rheumatoid arthritis of right ankle and foot with involvement of other organs and systems            |
| M05.672        | Rheumatoid arthritis of left ankle and foot with involvement of other organs and systems             |
| M05.679        | Rheumatoid arthritis of unspecified ankle and foot with involvement of other organs and systems      |
| M05.69         | Rheumatoid arthritis of multiple sites with involvement of other organs and systems                  |
| M05.70         | Rheumatoid arthritis with rheumatoid factor of unspecified site without organ or systems involvement |
| M05.711        | Rheumatoid arthritis with rheumatoid factor of right shoulder without organ or systems involvement   |
| M05.712        | Rheumatoid arthritis with rheumatoid factor of left shoulder without organ or systems involvement    |

| Diagnosis Code | Description  |
|----------------|--|
| M05.719        | Rheumatoid arthritis with rheumatoid factor of unspecified shoulder without organ or systems involvement       |
| M05.721        | Rheumatoid arthritis with rheumatoid factor of right elbow without organ or systems involvement                |
| M05.722        | Rheumatoid arthritis with rheumatoid factor of left elbow without organ or systems involvement                 |
| M05.729        | Rheumatoid arthritis with rheumatoid factor of unspecified elbow without organ or systems involvement          |
| M05.731        | Rheumatoid arthritis with rheumatoid factor of right wrist without organ or systems involvement                |
| M05.732        | Rheumatoid arthritis with rheumatoid factor of left wrist without organ or systems involvement                 |
| M05.739        | Rheumatoid arthritis with rheumatoid factor of unspecified wrist without organ or systems involvement          |
| M05.741        | Rheumatoid arthritis with rheumatoid factor of right hand without organ or systems involvement                 |
| M05.742        | Rheumatoid arthritis with rheumatoid factor of left hand without organ or systems involvement                  |
| M05.749        | Rheumatoid arthritis with rheumatoid factor of unspecified hand without organ or systems involvement           |
| M05.751        | Rheumatoid arthritis with rheumatoid factor of right hip without organ or systems involvement                  |
| M05.752        | Rheumatoid arthritis with rheumatoid factor of left hip without organ or systems involvement                   |
| M05.759        | Rheumatoid arthritis with rheumatoid factor of unspecified hip without organ or systems involvement            |
| M05.761        | Rheumatoid arthritis with rheumatoid factor of right knee without organ or systems involvement                 |
| M05.762        | Rheumatoid arthritis with rheumatoid factor of left knee without organ or systems involvement                  |
| M05.769        | Rheumatoid arthritis with rheumatoid factor of unspecified knee without organ or systems involvement           |
| M05.771        | Rheumatoid arthritis with rheumatoid factor of right ankle and foot without organ or systems involvement       |
| M05.772        | Rheumatoid arthritis with rheumatoid factor of left ankle and foot without organ or systems involvement        |
| M05.779        | Rheumatoid arthritis with rheumatoid factor of unspecified ankle and foot without organ or systems involvement |
| M05.79         | Rheumatoid arthritis with rheumatoid factor of multiple sites without organ or systems involvement             |
| M05.7A         | Rheumatoid arthritis with rheumatoid factor of other specified site without organ or systems involvement       |
| M05.80         | Other rheumatoid arthritis with rheumatoid factor of unspecified site  |
| M05.811        | Other rheumatoid arthritis with rheumatoid factor of right shoulder  |
| M05.812        | Other rheumatoid arthritis with rheumatoid factor of left shoulder   |
| M05.819        | Other rheumatoid arthritis with rheumatoid factor of unspecified shoulder                                      |
| M05.821        | Other rheumatoid arthritis with rheumatoid factor of right elbow   |
| M05.822        | Other rheumatoid arthritis with rheumatoid factor of left elbow  |
| M05.829        | Other rheumatoid arthritis with rheumatoid factor of unspecified elbow   |
| M05.831        | Other rheumatoid arthritis with rheumatoid factor of right wrist   |
| M05.832        | Other rheumatoid arthritis with rheumatoid factor of left wrist  |
| M05.839        | Other rheumatoid arthritis with rheumatoid factor of unspecified wrist   |
| M05.841        | Other rheumatoid arthritis with rheumatoid factor of right hand  |
| M05.842        | Other rheumatoid arthritis with rheumatoid factor of left hand   |
| M05.849        | Other rheumatoid arthritis with rheumatoid factor of unspecified hand  |
| M05.851        | Other rheumatoid arthritis with rheumatoid factor of right hip   |
| M05.852        | Other rheumatoid arthritis with rheumatoid factor of left hip  |
| M05.859        | Other rheumatoid arthritis with rheumatoid factor of unspecified hip   |
| M05.861        | Other rheumatoid arthritis with rheumatoid factor of right knee  |
| M05.862        | Other rheumatoid arthritis with rheumatoid factor of left knee   |
| M05.869        | Other rheumatoid arthritis with rheumatoid factor of unspecified knee  |



| Diagnosis Code | Description   |
|----------------|---|
| M05.871        | Other rheumatoid arthritis with rheumatoid factor of right ankle and foot       |
| M05.872        | Other rheumatoid arthritis with rheumatoid factor of left ankle and foot        |
| M05.879        | Other rheumatoid arthritis with rheumatoid factor of unspecified ankle and foot |
| M05.89         | Other rheumatoid arthritis with rheumatoid factor of multiple sites             |
| M05.8A         | Other rheumatoid arthritis with rheumatoid factor of other specified site       |
| M05.9          | Rheumatoid arthritis with rheumatoid factor, unspecified                        |
| M06.00         | Rheumatoid arthritis without rheumatoid factor, unspecified site                |
| M06.011        | Rheumatoid arthritis without rheumatoid factor, right shoulder                  |
| M06.012        | Rheumatoid arthritis without rheumatoid factor, left shoulder                   |
| M06.019        | Rheumatoid arthritis without rheumatoid factor, unspecified shoulder            |
| M06.021        | Rheumatoid arthritis without rheumatoid factor, right elbow                     |
| M06.022        | Rheumatoid arthritis without rheumatoid factor, left elbow                      |
| M06.029        | Rheumatoid arthritis without rheumatoid factor, unspecified elbow               |
| M06.031        | Rheumatoid arthritis without rheumatoid factor, right wrist                     |
| M06.032        | Rheumatoid arthritis without rheumatoid factor, left wrist                      |
| M06.039        | Rheumatoid arthritis without rheumatoid factor, unspecified wrist               |
| M06.041        | Rheumatoid arthritis without rheumatoid factor, right hand                      |
| M06.042        | Rheumatoid arthritis without rheumatoid factor, left hand                       |
| M06.049        | Rheumatoid arthritis without rheumatoid factor, unspecified hand                |
| M06.051        | Rheumatoid arthritis without rheumatoid factor, right hip                       |
| M06.052        | Rheumatoid arthritis without rheumatoid factor, left hip                        |
| M06.059        | Rheumatoid arthritis without rheumatoid factor, unspecified hip                 |
| M06.061        | Rheumatoid arthritis without rheumatoid factor, right knee                      |
| M06.062        | Rheumatoid arthritis without rheumatoid factor, left knee                       |
| M06.069        | Rheumatoid arthritis without rheumatoid factor, unspecified knee                |
| M06.071        | Rheumatoid arthritis without rheumatoid factor, right ankle and foot            |
| M06.072        | Rheumatoid arthritis without rheumatoid factor, left ankle and foot             |
| M06.079        | Rheumatoid arthritis without rheumatoid factor, unspecified ankle and foot      |
| M06.08         | Rheumatoid arthritis without rheumatoid factor, vertebrae                       |
| M06.09         | Rheumatoid arthritis without rheumatoid factor, multiple sites                  |
| M06.0A         | Rheumatoid arthritis without rheumatoid factor, other specified site            |
| M06.1          | Adult-onset Still's disease   |
| M06.80         | Other specified rheumatoid arthritis, unspecified site                          |
| M06.811        | Other specified rheumatoid arthritis, right shoulder                            |
| M06.812        | Other specified rheumatoid arthritis, left shoulder                             |
| M06.819        | Other specified rheumatoid arthritis, unspecified shoulder                      |
| M06.821        | Other specified rheumatoid arthritis, right elbow                               |
| M06.822        | Other specified rheumatoid arthritis, left elbow                                |
| M06.829        | Other specified rheumatoid arthritis, unspecified elbow                         |
| M06.831        | Other specified rheumatoid arthritis, right wrist                               |
| M06.832        | Other specified rheumatoid arthritis, left wrist                                |
| M06.839        | Other specified rheumatoid arthritis, unspecified wrist                         |

| Diagnosis Code | Description   |
|----------------|---|
| M06.841        | Other specified rheumatoid arthritis, right hand                      |
| M06.842        | Other specified rheumatoid arthritis, left hand                       |
| M06.849        | Other specified rheumatoid arthritis, unspecified hand                |
| M06.851        | Other specified rheumatoid arthritis, right hip                       |
| M06.852        | Other specified rheumatoid arthritis, left hip                        |
| M06.859        | Other specified rheumatoid arthritis, unspecified hip                 |
| M06.861        | Other specified rheumatoid arthritis, right knee                      |
| M06.862        | Other specified rheumatoid arthritis, left knee                       |
| M06.869        | Other specified rheumatoid arthritis, unspecified knee                |
| M06.871        | Other specified rheumatoid arthritis, right ankle and foot            |
| M06.872        | Other specified rheumatoid arthritis, left ankle and foot             |
| M06.879        | Other specified rheumatoid arthritis, unspecified ankle and foot      |
| M06.88         | Other specified rheumatoid arthritis, vertebrae                       |
| M06.89         | Other specified rheumatoid arthritis, multiple sites                  |
| M06.8A         | Other specified rheumatoid arthritis, other specified site            |
| M06.9          | Rheumatoid arthritis, unspecified                                     |
| M08.00         | Unspecified juvenile rheumatoid arthritis of unspecified site         |
| M08.0A         | Unspecified juvenile rheumatoid arthritis, other specified site       |
| M08.011        | Unspecified juvenile rheumatoid arthritis, right shoulder             |
| M08.012        | Unspecified juvenile rheumatoid arthritis, left shoulder              |
| M08.019        | Unspecified juvenile rheumatoid arthritis, unspecified shoulder       |
| M08.021        | Unspecified juvenile rheumatoid arthritis, right elbow                |
| M08.022        | Unspecified juvenile rheumatoid arthritis, left elbow                 |
| M08.029        | Unspecified juvenile rheumatoid arthritis, unspecified elbow          |
| M08.031        | Unspecified juvenile rheumatoid arthritis, right wrist                |
| M08.032        | Unspecified juvenile rheumatoid arthritis, left wrist                 |
| M08.039        | Unspecified juvenile rheumatoid arthritis, unspecified wrist          |
| M08.041        | Unspecified juvenile rheumatoid arthritis, right hand                 |
| M08.042        | Unspecified juvenile rheumatoid arthritis, left hand                  |
| M08.049        | Unspecified juvenile rheumatoid arthritis, unspecified hand           |
| M08.051        | Unspecified juvenile rheumatoid arthritis, right hip                  |
| M08.052        | Unspecified juvenile rheumatoid arthritis, left hip                   |
| M08.059        | Unspecified juvenile rheumatoid arthritis, unspecified hip            |
| M08.061        | Unspecified juvenile rheumatoid arthritis, right knee                 |
| M08.062        | Unspecified juvenile rheumatoid arthritis, left knee                  |
| M08.069        | Unspecified juvenile rheumatoid arthritis, unspecified knee           |
| M08.071        | Unspecified juvenile rheumatoid arthritis, right ankle and foot       |
| M08.072        | Unspecified juvenile rheumatoid arthritis, left ankle and foot        |
| M08.079        | Unspecified juvenile rheumatoid arthritis, unspecified ankle and foot |
| M08.08         | Unspecified juvenile rheumatoid arthritis, vertebrae                  |
| M08.09         | Unspecified juvenile rheumatoid arthritis, multiple sites             |
| M08.20         | Juvenile rheumatoid arthritis with systemic onset, unspecified site   |

| Diagnosis Code | Description   |
|----------------|---|
| M08.211        | Juvenile rheumatoid arthritis with systemic onset, right shoulder             |
| M08.212        | Juvenile rheumatoid arthritis with systemic onset, left shoulder              |
| M08.219        | Juvenile rheumatoid arthritis with systemic onset, unspecified shoulder       |
| M08.221        | Juvenile rheumatoid arthritis with systemic onset, right elbow                |
| M08.222        | Juvenile rheumatoid arthritis with systemic onset, left elbow                 |
| M08.229        | Juvenile rheumatoid arthritis with systemic onset, unspecified elbow          |
| M08.231        | Juvenile rheumatoid arthritis with systemic onset, right wrist                |
| M08.232        | Juvenile rheumatoid arthritis with systemic onset, left wrist                 |
| M08.239        | Juvenile rheumatoid arthritis with systemic onset, unspecified wrist          |
| M08.241        | Juvenile rheumatoid arthritis with systemic onset, right hand                 |
| M08.242        | Juvenile rheumatoid arthritis with systemic onset, left hand                  |
| M08.249        | Juvenile rheumatoid arthritis with systemic onset, unspecified hand           |
| M08.251        | Juvenile rheumatoid arthritis with systemic onset, right hip                  |
| M08.252        | Juvenile rheumatoid arthritis with systemic onset, left hip                   |
| M08.259        | Juvenile rheumatoid arthritis with systemic onset, unspecified hip            |
| M08.261        | Juvenile rheumatoid arthritis with systemic onset, right knee                 |
| M08.262        | Juvenile rheumatoid arthritis with systemic onset, left knee                  |
| M08.269        | Juvenile rheumatoid arthritis with systemic onset, unspecified knee           |
| M08.271        | Juvenile rheumatoid arthritis with systemic onset, right ankle and foot       |
| M08.272        | Juvenile rheumatoid arthritis with systemic onset, left ankle and foot        |
| M08.279        | Juvenile rheumatoid arthritis with systemic onset, unspecified ankle and foot |
| M08.28         | Juvenile rheumatoid arthritis with systemic onset, vertebrae                  |
| M08.29         | Juvenile rheumatoid arthritis with systemic onset, multiple sites             |
| M08.2A         | Juvenile rheumatoid arthritis with systemic onset, other specified site       |
| M08.3          | Juvenile rheumatoid polyarthritis (seronegative)                              |
| M08.80         | Other juvenile arthritis, unspecified site                                    |
| M08.811        | Other juvenile arthritis, right shoulder                                      |
| M08.812        | Other juvenile arthritis, left shoulder                                       |
| M08.819        | Other juvenile arthritis, unspecified shoulder                                |
| M08.821        | Other juvenile arthritis, right elbow   |
| M08.822        | Other juvenile arthritis, left elbow  |
| M08.829        | Other juvenile arthritis, unspecified elbow                                   |
| M08.831        | Other juvenile arthritis, right wrist   |
| M08.832        | Other juvenile arthritis, left wrist  |
| M08.839        | Other juvenile arthritis, unspecified wrist                                   |
| M08.841        | Other juvenile arthritis, right hand  |
| M08.842        | Other juvenile arthritis, left hand   |
| M08.849        | Other juvenile arthritis, unspecified hand                                    |
| M08.851        | Other juvenile arthritis, right hip   |
| M08.852        | Other juvenile arthritis, left hip  |
| M08.859        | Other juvenile arthritis, unspecified hip                                     |
| M08.861        | Other juvenile arthritis, right knee  |

| Diagnosis Code | Description  |
|----------------|--|
| M08.862        | Other juvenile arthritis, left knee  |
| M08.869        | Other juvenile arthritis, unspecified knee   |
| M08.871        | Other juvenile arthritis, right ankle and foot                                     |
| M08.872        | Other juvenile arthritis, left ankle and foot                                      |
| M08.879        | Other juvenile arthritis, unspecified ankle and foot                               |
| M08.88         | Other juvenile arthritis, vertebrae  |
| M08.89         | Other juvenile arthritis, multiple sites   |
| M08.90         | Juvenile arthritis, unspecified, unspecified site                                  |
| M08.9A         | Juvenile arthritis, unspecified, other specified site                              |
| M08.911        | Juvenile arthritis, unspecified, right shoulder                                    |
| M08.912        | Juvenile arthritis, unspecified, left shoulder                                     |
| M08.919        | Juvenile arthritis, unspecified, unspecified shoulder                              |
| M08.921        | Juvenile arthritis, unspecified, right elbow                                       |
| M08.922        | Juvenile arthritis, unspecified, left elbow  |
| M08.929        | Juvenile arthritis, unspecified, unspecified elbow                                 |
| M08.931        | Juvenile arthritis, unspecified, right wrist                                       |
| M08.932        | Juvenile arthritis, unspecified, left wrist  |
| M08.939        | Juvenile arthritis, unspecified, unspecified wrist                                 |
| M08.941        | Juvenile arthritis, unspecified, right hand  |
| M08.942        | Juvenile arthritis, unspecified, left hand   |
| M08.949        | Juvenile arthritis, unspecified, unspecified hand                                  |
| M08.951        | Juvenile arthritis, unspecified, right hip   |
| M08.952        | Juvenile arthritis, unspecified, left hip  |
| M08.959        | Juvenile arthritis, unspecified, unspecified hip                                   |
| M08.961        | Juvenile arthritis, unspecified, right knee  |
| M08.962        | Juvenile arthritis, unspecified, left knee   |
| M08.969        | Juvenile arthritis, unspecified, unspecified knee                                  |
| M08.971        | Juvenile arthritis, unspecified, right ankle and foot                              |
| M08.972        | Juvenile arthritis, unspecified, left ankle and foot                               |
| M08.979        | Juvenile arthritis, unspecified, unspecified ankle and foot                        |
| M08.98         | Juvenile arthritis, unspecified, vertebrae   |
| M08.99         | Juvenile arthritis, unspecified, multiple sites                                    |
| T45.1X5A       | Adverse effect of antineoplastic and immunosuppressive drugs, initial encounter    |
| T45.1X5D       | Adverse effect of antineoplastic and immunosuppressive drugs, subsequent encounter |
| T45.1X5S       | Adverse effect of antineoplastic and immunosuppressive drugs, sequela              |

## Background

Orencia is a fully human, soluble, fusion protein, selective co-stimulation modulator which inhibits T lymphocyte activation by binding to CD80 and CD86, thereby blocking interaction with CD28.<sup>6,7</sup> This interaction provides a costimulatory signal necessary for full activation of T lymphocytes.<sup>5</sup>

## Proven

### *Psoriatic Arthritis*

A randomized, placebo-controlled Phase 3 trial assessed the efficacy and safety of abatacept in adult patients (> 18 years old) with psoriatic arthritis.<sup>22</sup> Patients were randomly assigned in a double-blind manner to receive either subcutaneous abatacept 125mg weekly or placebo for 24 weeks. Patients who had not achieved  $\geq 20\%$  improvement in swollen and tender joint counts from baseline to week 16 were switched to open-label abatacept weekly for 28 weeks. At the end of the open-label period, patients had the option of entering a 1 year, long-term extension. Primary efficacy endpoint was the proportion of patients with ACR20 responses at week 24. Abatacept significantly increased ACR20 response versus placebo at week 24 (39.4% vs 22.3%;  $p < 0.001$ ). Although abatacept numerically increased Health Assessment Questionnaire–Disability Index response rates (reduction from baseline  $\geq 0.35$ ) at week 24, this was not statistically significant (31.0% vs 23.7%;  $p = 0.097$ ). The benefits of abatacept were seen in ACR20 responses regardless of TNF inhibitor exposure and in other musculoskeletal manifestations, but significance could not be attributed due to ranking below Health Assessment Questionnaire–Disability Index response in hierarchical testing. The benefit on psoriasis lesions was modest. Efficacy was maintained or improved up to week 52. Abatacept was well tolerated with no new safety signals. The authors concluded that abatacept treatment of PsA in achieved its primary end point, ACR20 response, showed beneficial trends overall in musculoskeletal manifestations and was well tolerated. There was only a modest impact on psoriasis lesions.

### *Rheumatoid Arthritis*

In a Phase 3b double-blind, double-dummy, 6 month study, Genovese et al, compared the efficacy and safety of subcutaneous (SC) and intravenous (IV) abatacept.<sup>26</sup> Patients with rheumatoid arthritis (RA) and with inadequate response to methotrexate (MTX), were randomized to receive either 125mg SC abatacept on days 1 and 8 and weekly thereafter (plus an IV loading dose 10mg/kg on day 1) or IV abatacept 10mg/kg on days 1, 15, and 29 and every 4 weeks thereafter. The primary end point for determining the noninferiority of SC abatacept to IV abatacept was the proportion of patients in each group meeting the American College of Rheumatology 20% improvement criteria (achieving an ACR20 response) at month 6. Of 1,457 patients, 693 of 736 (94.2%) treated with SC abatacept and 676 of 721 (93.8%) treated with IV abatacept completed 6 months. At month 6, 76.0% (95% confidence interval 72.9, 79.2) of SC abatacept–treated patients versus 75.8% (95% confidence interval 72.6, 79.0) of IV abatacept–treated patients achieved an ACR20 response (estimated difference between groups 0.3% [95% confidence interval –4.2, 4.8]), confirming noninferiority of SC abatacept to IV abatacept. Onset and magnitude of ACR responses and disease activity and physical function improvements were comparable between the SC and IV abatacept–treated groups. The proportions of adverse events (AEs) and serious AEs over 6 months were 67.0% and 4.2%, respectively, in the SC abatacept–treated group and 65.2% and 4.9%, respectively, in the IV abatacept–treated group, with comparable frequencies of serious infections, malignancies, and autoimmune events between groups. SC injection site reactions (mostly mild) occurred in 19 SC abatacept (IV placebo)–treated patients (2.6%) and 18 IV abatacept (SC placebo)–treated patients (2.5%). Abatacept-induced antibodies occurred in 1.1% of SC abatacept–treated patients and 2.3% of IV abatacept–treated patients. No major differences in ACR responses were observed between intravenous and subcutaneous treatment groups in subgroups based on weight categories (less than 60 kg, 60 to 100 kg, and more than 100 kg). The authors concluded that SC abatacept provides efficacy and safety comparable with that of IV abatacept.

A randomized, multicenter, active controlled Phase 3b trial, the Assessing Very Early Rheumatoid arthritis Treatment (AVERT) trial ( $n = 351$ ) of 24 months, with a 12-month, double-blind treatment period, evaluated clinical remission with subcutaneous abatacept plus methotrexate (MTX) and abatacept monotherapy in patients with early rheumatoid arthritis (RA), and maintenance of remission following the rapid withdrawal of all RA treatment.<sup>17</sup> During the 12 month treatment period, patients were randomized (1:1:1) to receive abatacept plus MTX ( $n = 119$ ), abatacept monotherapy ( $n = 116$ ), or MTX monotherapy ( $n = 116$ ), stratified by corticosteroid use at baseline. Patients with a Disease Activity Score (DAS)28 (CRP)  $< 3.2$  at month 12 could enter the 12 month withdrawal period where abatacept was immediately stopped and MTX and steroids tapered over 1 month. Patients with DAS28  $\geq 3.2$  discontinued the study. After month 15, patients in the withdrawal period who experienced a flare could re-start open label SC abatacept 125mg plus MTX. Co-primary endpoints were the proportion of randomized and treated patients in DAS-defined remission (CRP  $< 2.6$ ) at month 12 and months 12 and 18 for abatacept plus MTX versus MTX. For the abatacept plus MTX versus MTX, DAS28 (CRP)  $< 2.6$  was achieved in 60.9% versus 45.2% ( $p = 0.010$ ) at 12 months, and following treatment withdrawal, in 14.8% versus 7.8% ( $p = 0.045$ ) at both 12 and 18 months. DAS28 (CRP)  $< 2.6$  was achieved for abatacept monotherapy in 42.5% (month 12) and 12.45% (both months 12 and 18). Both abatacept arms had a safety profile

comparable to MTX alone. The authors concluded that abatacept plus MTX demonstrated efficacy compared with MTX alone in early RA, with a comparable safety profile to MTX. Abatacept achieved some sustained remission following withdrawal of all RA therapy in the respective groups.

### ***Polyarticular Juvenile Idiopathic Arthritis***

Brunner et al investigated the pharmacokinetics, effectiveness, and safety of subcutaneous (SC) abatacept in patients with polyarticular juvenile idiopathic arthritis (PJIA) over 24 months.<sup>27</sup> This Phase 3, open-label, international, multicenter, single-arm study enrolled patients in two cohorts: cohort 1, aged 6 to 17 years and cohort 2, ages 2 to 5 years, each in whom treatment with  $\geq 1$  DMARD was unsuccessful. Patients received weight-tiered SC abatacept weekly: 10 to  $< 25$  kg (50 mg), 25 to  $< 50$  kg (87.5 mg),  $\geq 50$  kg (125 mg). Patients who had met the JIA–American College of Rheumatology 30% improvement criteria (achieved a JIA-ACR 30 response) at month 4 were given the option to continue SC abatacept to month 24. The primary end point was the abatacept steady-state serum trough concentration ( $C_{\text{minss}}$ ) in cohort 1 at month 4. Other outcome measures included JIA-ACR 30, 50, 70, 90, 100, and inactive disease status, the median Juvenile Arthritis Disease Activity Score in 71 joints using the C-reactive protein level (JADAS-71–CRP) over time, safety, and immunogenicity. The median abatacept  $C_{\text{minss}}$  at month 4 and at month 24 was above the target therapeutic exposure (10  $\mu\text{g/ml}$ ) in both cohorts. The percentage of patients who had achieved JIA-ACR 30, 50, 70, 90, or 100 responses or had inactive disease responses at month 4 (intent-to-treat population) was 83.2%, 72.8%, 52.6%, 28.3%, 14.5%, and 30.1%, respectively, in cohort 1 ( $n = 173$ ) and 89.1%, 84.8%, 73.9%, 58.7%, 41.3%, and 50.0%, respectively, in cohort 2 ( $n = 46$ ); the responses were maintained to month 24. Improvements were sustained to month 24, at which time 27 of 173 patients (cohort 1) and 11 of 22 patients (cohort 2) had achieved JADAS-71–CRP remission. No unexpected adverse events were reported; 4 of 172 patients (2.3%) in cohort 1 and 4 of 46 (8.7%) in cohort 2 developed anti-abatacept antibodies, with no clinical effects. The JIA ACR 30, 50, 70 responses assessed at 4 months in the 2- to 17-year-old patients were consistent with the results from the intravenous study, JIA-1.

The long-term extension (LTE) phase of a pivotal phase III study examining the efficacy and safety of abatacept in patients with juvenile idiopathic arthritis (JIA) reported the efficacy and safety outcomes of treatment (up to 10mg/kg every 4 weeks), with or without non-biologic DMARDs, for up to 7 years of follow-up.<sup>19</sup> One hundred fifty-three of 190 patients (80.5%) entered the LTE phase, with only 69 patients (36.3%) completing the study. The overall incidence rate (events per 100 patient-years) of adverse events decreased from 433.61 events during the short-term phase compared to 132.39 events during the LTE phase. Serious adverse events (6.82 vs. 5.60), malignancies (1.12 vs. 0), and autoimmune events (2.26 vs. 1.18) also were reduced. Serious infections were slightly increased (1.13 vs. 1.72). American College of Rheumatology (ACR) Pediatric 30 (Pedi 30), Pedi 70, responses, and clinically inactive disease status were maintained throughout the extension phase in those patients continuing to receive therapy. Improvements in the Child Health Questionnaire summary scores were also maintained over the course of the study. The authors concluded that long-term abatacept therapy, for up to 7 years, was associated with consistent safety, efficacy, and quality of life benefits in patients with JIA.

### ***Prophylaxis of Acute Graft versus Host Disease***

In a multicenter, two cohort clinical study (GVHD-1), abatacept, in combination with a calcineurin inhibitor (CNI) and methotrexate (MTX), was evaluated in patients age 6 years and older who underwent hematopoietic stem cell transplantation (HSCT) from a matched or 1 allele-mismatched unrelated donor (URD).<sup>31</sup> The two cohorts included an open-label, single-arm study for 43 patients who underwent a 7 of 8 Human Leukocyte Antigen (HLA)-matched HSCT (7 of 8 cohort) and a randomized (1:1), double-blind, placebo-controlled study of patients who underwent an 8 of 8 HLA-matched HSCT who received Orencia or placebo in combination with a CNI and MTX (8 of 8 cohort). In both the 7/8 and 8/8 cohorts, abatacept was administered at a dose of 10 mg/kg (1,000 mg maximum dose) as an intravenous infusion over 60 minutes, beginning on the day before transplantation (Day -1), followed by administration on Days 5, 14, and 28 after transplantation. Efficacy was established based on overall survival (OS) and grade II-IV aGVHD free survival (GFS) results assessed at Day 180 post-transplantation. Abatacept plus CNI and MTX did not significantly improve grade III-IV GFS versus placebo plus CNI and MTX at Day 180 post-transplantation. In the 8/8 cohort, the efficacy of abatacept plus CNI and MTX at Day 180 post-transplantation for grade III-IV GFS rate and hazard ratio, grade II-IV GFS rate and hazard ratio, and OS rate and hazard ratio were 87% and 0.55, 50% and 0.54, and 97% and 0.33, respectively. In the placebo plus CNI and MTX, the efficacy results at Day 180 post-transplantation for grade III-IV GFS rate, grade II-IV GFS rate, and OS rate were 75%, 32%, and 84%, respectively. In an exploratory analysis of the 7/8 cohort of abatacept-treated patients ( $n = 43$ ), the rates of grade III-IV GVHD-free survival, grade II-IV GVHD-free survival, and overall survival at Day 180 post-transplantation were 95%, 53%, and 98%, respectively.

The GVHD-2 study was a clinical study that used data from the Center for International Blood and Marrow Transplant Research (CIBMTR).<sup>32</sup> The study analyzed outcomes of abatacept in combination with a CNI and MTX, versus a CNI and MTX alone, for the prophylaxis of aGVHD, in patients 6 years of age or older who underwent HSCT from a 1 allele-mismatched URD between 2011 and 2018. The abatacept plus CNI and MTX-treated group (n = 54) included 42 patients from GVHD-1, in addition to 12 patients treated with abatacept outside of GVHD-1. The comparator group (n = 162) was randomly selected in a 3:1 ratio to the abatacept-treated group from the CIBMTR registry from patients who had not received abatacept during the study period. Analyses used propensity score matching and inverse probability of treatment weighting to help address the impact of selection bias. Efficacy was based on OS at Day 180 post-HSCT. The OS rate at Day 180 in the abatacept plus CNI and MTX group was 98% and the OS rate at Day 180 in the CNI and MTX group was 75%.

### ***NCCN Recommended Uses***

According to the NCCN Drugs & Biologics Compendium, NCCN recommends (2A) abatacept for the treatment of:

- Chronic graft-versus-host disease (GVHD) as additional therapy in conjunction with systemic corticosteroids following no response (steroid-refractory disease) to first-line therapy options
- Immune checkpoint inhibitor-related toxicities – Consider adding abatacept for the management of immunotherapy-related:
  - Severe (G3) or life-threatening (G4) myocarditis, pericarditis, arrhythmias, impaired ventricular function, or conduction abnormalities if no improvement within 24 hours of starting pulse-dose methylprednisolone

### **Unproven**

#### ***Multiple Sclerosis***

Khoury et al conducted ACCLAIM (A Cooperative Clinical Study of Abatacept in Multiple Sclerosis), a Phase II, randomized, double-blind, placebo-controlled, multi-center trial.<sup>23</sup> In the trial, 65 of 123 planned participants with relapsing-remitting multiple sclerosis (RRMS) were randomized to monthly intravenous infusions of abatacept or placebo for 24 weeks and then switched to the other treatment at 28 weeks. The primary endpoint was the mean number of new gadolinium-enhancing (Gd+) lesions obtained on magnetic resonance imaging (MRI) scans performed every 4 weeks. There was not a statistically significant difference observed between the abatacept and placebo groups for in mean number of new Gd+ MRI lesions. Additionally, no statistically significant differences were found in other MRI and clinical parameters of RRMS disease activity. The authors conclude that the ACCLAIM study did not demonstrate efficacy of abatacept in reducing the number of new Gd+ MRI lesions, or clinical measures of disease activity in RRMS.

A randomized, double-blind, placebo-controlled Phase II study of 128 patients was initiated to evaluate the use of abatacept in patients with relapsing-remitting multiple sclerosis.<sup>8</sup> The primary objective was to demonstrate the relative safety and preliminary clinical efficacy of 2 different doses of abatacept (10 mg/kg and 2 mg/kg) compared with placebo in subjects with relapsing-remitting MS by showing a reduction in the cumulative number of new or recurrent gadolinium-enhancing lesions on T1-weighted (Gd-T1) magnetic resonance imaging (MRI) over Day 85 through Day 225. However, the study terminated early because the Drug Safety Monitoring Board (DSMB) responsible for reviewing blinded safety data from the study expressed concerns that one of the treatment groups (subsequently found to be the 2 mg/kg abatacept group) had more subjects exhibiting an increase in Gd-enhancing T1-weighted MRI lesions and at least 1 multiple sclerosis exacerbation.

#### ***Systemic Lupus Erythematosus***

A Phase II multi-center, randomized, double-blind, placebo-controlled study was conducted to evaluate the efficacy and safety of abatacept (n = 121) versus placebo (n = 59) for patients with systemic lupus erythematosus (SLE).<sup>9</sup> The abatacept group received the study drug (weight-tiered dosing) administered intravenously on Day 1, 15, 29, and every 28 days thereafter. Planned treatment duration for the double-blind period was 12 months. Prednisone or prednisone equivalent oral tablets was given on a defined tapering schedule at the time of randomization along with the study medication or placebo. The study failed to meet the primary efficacy endpoint, which was to assess the proportion of subjects who experienced a new SLE flare, based on adjudication of all BILAG 'A' or 'B' events, following resolution of the entry flare and/or the start of prednisone or prednisone equivalent taper schedule across the 12-month double-blind treatment period.

#### ***Uveitis Associated with Behçet's Disease***

Blockade of antigen non-specific co-stimulatory signals is theorized to be effective for Behçet's disease.<sup>13,14</sup> However, there is currently insufficient clinical evidence of the safety and efficacy of abatacept in published peer-reviewed medical literature for this condition.

## Professional Societies

### *Psoriatic Arthritis*

In 2018, the American College of Rheumatology and the National Psoriasis Foundation published treatment guideline for the treatment of psoriatic arthritis. In regards to psoriatic arthritis (PsA) and abatacept, the guidelines state:

- Recommendations for treatment of patients with active psoriatic arthritis despite treatment with an oral small molecule (OSM):
  - Switch to a TNFi biologic over abatacept:
    - Conditional recommendation based on low-quality evidence; may consider abatacept if the patient has contraindications to TNFi biologics, including congestive heart failure, previous serious infections, recurrent infections, or demyelinating disease.
  - Switch to an IL-17i biologic over abatacept:
    - Conditional recommendation based on low-quality evidence; may consider abatacept in patients with recurrent or serious infections.
  - Switch to an IL-12/23i biologic over abatacept:
    - Conditional recommendation based on low-quality evidence; may consider abatacept in patients with recurrent or serious infections.
- Recommendations for treatment of patients with active psoriatic arthritis despite treatment with a TNFi biologic, as monotherapy or in combination with MTX:
  - Switch to a different TNFi biologic over switching to abatacept:
    - Conditional recommendation based on low-quality evidence; may consider abatacept if the patient had a primary TNFi biologic efficacy failure or TNFi biologic-associated serious adverse effect.
  - Switch to an IL-17i biologic over abatacept:
    - Conditional recommendation based on low-quality evidence; may consider abatacept if the patient prefers IV dosing or in patients with recurrent or serious infections.
  - Switch to an IL-12/23i biologic over abatacept:
    - Conditional recommendation based on of low-quality evidence; may consider abatacept if the patient prefers IV dosing or in patients with recurrent or serious infections.

The American Academy of Dermatology (AAD) defines psoriatic arthritis (PsA) as mild, moderate, or severe. Where mild disease responds to NSAIDs, moderate disease requires DMARDs or TNF blockers. Appropriate treatment of severe PsA requires DMARDs plus TNF blockers or other biologic therapies. If PsA is diagnosed, treatment should be initiated to alleviate signs and symptoms of PsA, inhibit structural damage, and maximize quality of life (QOL). According to the 2019 AAD Practice Guidelines for the management of psoriatic arthritis, the potential importance of TNF- $\alpha$  in the pathophysiology of PsA is underscored by the observation that there are elevated levels of TNF- $\alpha$  in the synovium, joint fluid, and skin of patients with PsA. The guidelines support the use of infliximab for PsA based on evidence ranked as consistent, good quality, and patient-oriented. (Strength of Recommendation: A).

### *Rheumatoid Arthritis*

The 2015 American College of Rheumatology (ACR) RA treatment guideline addresses the use of DMARDs, biologics, tofacitinib, and glucocorticoids in early (<6 months) and established ( $\geq$  6 months) RA and the use of various treatment approaches in frequently encountered clinical scenarios, including treat-to-target, switching between therapies, tapering of therapy, the use of biologics and DMARDs in high-risk RA patients, vaccination in patients with RA receiving DMARDs or biologics, TB screening with biologics or tofacitinib, and laboratory monitoring with DMARDs.<sup>21</sup> The guideline recommendations apply to common clinical situations, since the panel considered issues common to most patients, not exceptions. Recommendations are classified as either strong or conditional. A strong recommendation means that the panel was confident that the desirable effects of following the recommendation outweigh the undesirable effects (or vice versa), so the course of action would apply to most patients, and only a small proportion would not want to follow the recommendation. A conditional recommendation means that the desirable effects of following the recommendation probably outweigh the undesirable effects, so the course of action would apply to the majority of patients, but some may not want to follow the recommendation. As a result, conditional recommendations are preference sensitive and warrant a shared decision-making approach.

Supplementary Appendix 5, of the 2015 ACR RA guideline, summarizes recommendations for patients with early RA, established RA, and high-risk comorbidities:<sup>21</sup>



## Recommendations for Early RA Patients

- The panel strongly recommends using a treat-to-target strategy rather than a non-targeted approach, regardless of disease activity level. The ideal target should be low disease activity or remission, as determined by the clinician and the patient. In some cases, another target may be chosen because risk tolerance by patients or comorbidities may mitigate the usual choices.
- For DMARD-naïve patients with early, symptomatic RA, the panel strongly recommends DMARD monotherapy over double or triple DMARD therapy in patients with low disease activity and conditionally recommends DMARD monotherapy over double or triple DMARD therapy in patients with moderate or high disease activity. Methotrexate should be the preferred initial therapy for most patients with early RA with active disease.
- For patients with moderate or high disease activity despite DMARD therapy (with or without glucocorticoids), the panel strongly recommends treatment with a combination of DMARDs or a TNFi or a non-TNF biologic, with or without methotrexate (MTX) in no particular order of preference, rather than continuing DMARD monotherapy alone. Biologic therapy should be used in combination with MTX over biologic monotherapy, when possible, due to superior efficacy.
- For patients with moderate or high disease activity despite any of the above DMARD or biologic therapies, the panel conditionally recommends adding low-dose glucocorticoids (defined as  $\leq 10$  mg/day of prednisone or equivalent). Low-dose glucocorticoids may also be used in patients who need a bridge until realizing the benefits of DMARD therapy. The risk/benefit ratio of glucocorticoid therapy is favorable as long as the dose is low and the duration of therapy is short.
- For patients experiencing a flare of RA, the panel conditionally recommends adding short-term glucocorticoids (< 3 months of treatment) at the lowest possible dose for the shortest possible duration, to provide a favorable benefit-risk ratio for the patient.

## Recommendations for Established RA Patients

- The panel strongly recommends using a treat-to-target strategy rather than a non-targeted approach, regardless of disease activity level. The ideal target should be low disease activity or remission, as determined by the clinician and the patient. In some cases, however, another target may be chosen because tolerance by patients or comorbidities may mitigate the usual choices.
- For DMARD-naïve patients with low disease activity, the panel strongly recommends using DMARD monotherapy over a TNFi. For DMARD-naïve patients with moderate or high disease activity, the panel conditionally recommends DMARD monotherapy over double or triple DMARD therapy and DMARD monotherapy over tofacitinib. In general, MTX should be the preferred initial therapy for most patients with established RA with active disease.
- For patients with moderate or high disease activity despite DMARD monotherapy including methotrexate, the panel strongly recommends using combination DMARDs or adding a TNFi or a non-TNF biologic or tofacitinib (all choices with or without methotrexate) in no particular order of preference, rather than continuing DMARD monotherapy alone. Biologic therapy should be used in combination with MTX over biologic monotherapy, when possible, due to its superior efficacy.

For all scenarios for established RA below, treatment may be with or without MTX:

- For moderate or high disease activity despite TNFi therapy in patients currently not on a DMARD, the panel strongly recommends that one or two DMARDs be added to TNFi therapy rather than continuing TNFi therapy alone.
- If disease activity is moderate or high despite single TNFi biologic therapy, the panel conditionally recommends using a non-TNF biologic.
- If disease activity is moderate or high despite non-TNF biologic therapy, the panel conditionally recommends using another non-TNF biologic. However, if a patient has failed multiple non-TNF biologics and they are TNFi-naïve with moderate or high disease activity, the panel conditionally recommends treatment with a TNFi.
- For patients with moderate or high disease activity despite prior treatment with at least one TNFi and at least one non-TNF-biologic (sequentially, not combined), the panel conditionally recommends first treating with another non-TNF biologic. However, when a non-TNF biologic is not an option (e.g., patient declines non-TNF biologic therapy due to inefficacy or side effects), the panel conditionally recommends treatment with tofacitinib.
- If disease activity is moderate or high despite the use of multiple (2+) TNFi therapies (in sequence, not concurrently), the panel conditionally recommends non-TNF biologic therapy and then conditionally treating with tofacitinib when a non-TNF biologic is not an option.
- If disease activity is moderate or high despite any of the above DMARD or biologic therapies, the panel conditionally recommends adding low-dose glucocorticoids.

- If patients with established RA experience an RA flare while on DMARD, TNFi, or non-TNF biologic therapy, the panel conditionally recommends adding short-term glucocorticoids (< 3 months of treatment) at the lowest possible dose and for shortest possible duration to provide the best benefit-risk ratio for the patient.
- In patients with established RA and low disease activity but not remission, the panel strongly recommends continuing DMARD therapy, TNFi, non-TNF biologic or tofacitinib rather than discontinuing respective medication.
- In patients with established RA currently in remission, the panel conditionally recommends tapering DMARD therapy, TNFi, non-TNF biologic, or tofacitinib.
- The panel strongly recommends not discontinuing all therapies in patients with established RA in disease remission.

## Recommendations for RA Patients with High-Risk Comorbidities

- Congestive Heart Failure:
  - In patients with established RA with moderate or high disease activity and New York Heart Association (NYHA) class III or IV congestive heart failure (CHF), the panel conditionally recommends using combination DMARD therapy, a non-TNF biologic, or tofacitinib rather than a TNFi.
  - If patients in this population are treated with a TNFi and their CHF worsens while on the TNFi, the panel conditionally recommends switching to combination DMARD therapy, a non-TNF biologic, or tofacitinib rather than a different TNFi.
- Hepatitis B:
  - In patients with established RA with moderate or high disease activity and evidence of active hepatitis B infection (hepatitis surface antigen positive > 6 months), who are receiving or have received effective antiviral treatment, the panel strongly recommends treating them the same as patients without this condition.
  - For a patient with natural immunity from prior exposure to hepatitis B (i.e., HB core antibody and HBS antibody positive and normal liver function tests), the panel recommends the same therapies as those without such findings as long as the patient's viral load is monitored.
  - For patients with chronic hepatitis B who are untreated, referral for antiviral therapy is appropriate prior to immunosuppressive therapy.
- Hepatitis C:
  - In patients with established RA with moderate or high disease activity and evidence of chronic hepatitis C virus (HCV) infection, who are receiving or have received effective antiviral treatment, the panel conditionally recommends treating them the same as the patients without this condition.
  - The panel recommends that rheumatologists work with gastroenterologists and/or hepatologists who would monitor patients and reassess the appropriateness of antiviral therapy. This is important considering the recent availability of highly effective therapy for HCV, which may lead to a greater number of HCV patients being treated successfully.
  - If the same patient is not requiring or receiving antiviral treatment for their hepatitis C, the panel conditionally recommends using DMARD therapy rather than TNFi.
- Malignancy:
  - Previous Melanoma and Non-Melanoma Skin Cancer:
    - In patients with established RA and moderate or high disease activity and a history of previously treated or untreated skin cancer (melanoma or non-melanoma), the panel conditionally recommends the use of DMARD therapy over biologics or tofacitinib.
  - Previous Lymphoproliferative Disorders:
    - In patients with established RA with moderate or high disease activity and a history of a previously treated lymphoproliferative disorder, the panel strongly recommends using rituximab rather than a TNFi and conditionally recommends using combination DMARD therapy, abatacept or tocilizumab rather than TNFi.
  - Previous Solid Organ Cancer:
    - In patients with established RA with moderate or high disease activity and previously treated solid organ cancer, the panel conditionally recommends that they be treated for RA just as one would treat an RA patient without a history of solid organ cancer.
- Serious Infections:
  - In patients with established RA with moderate or high disease activity and previous serious infection(s), the panel conditionally recommends using combination DMARD therapy or abatacept rather than TNFi.

## Juvenile Idiopathic Arthritis

The 2019 American College of Rheumatology (ACR) and Arthritis Foundation guideline for the treatment of juvenile idiopathic arthritis include abatacept.<sup>2</sup>

- General medication recommendations for children and adolescents with JIA and polyarthritis:
  - Biologic DMARDs:
    - In children and adolescents with JIA and polyarthritis initiating treatment with a biologic (etanercept, adalimumab, golimumab, abatacept, or tocilizumab) combination therapy with a DMARD is conditionally recommended over biologic monotherapy
- General guidelines for the initial and subsequent treatment of children and adolescents with JIA and polyarthritis:
  - Subsequent therapy: Moderate/high disease activity (cJADAS-10 > 2.5)
    - If patient is receiving DMARD monotherapy: Adding a biologic to original DMARD is conditionally recommended over changing to a second DMARD. Adding a biologic is conditionally recommended over changing to triple DMARD therapy.
    - If patient is receiving first TNFi (± DMARD): Switching to a non-TNFi biologic (tocilizumab or abatacept) is conditionally recommended over switching to a second TNFi. A second TNFi may be appropriate for patients with good initial response to their first TNFi (i.e., secondary failure).
    - If patient is receiving second biologic: Using TNFi, abatacept, or tocilizumab (depending on prior biologics received) is conditionally recommended over rituximab.

## U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

Orencia is indicated for reducing signs and symptoms, inducing major clinical response, inhibiting the progression of structural damage, and improving physical function in adult patients with moderately to severely active rheumatoid arthritis. Orencia may be used as monotherapy or concomitantly with DMARDs other than tumor necrosis factor (TNF) antagonists.<sup>5</sup>

Orencia is also indicated for reducing signs and symptoms in pediatric patients 2 years of age and older with moderately to severely active polyarticular juvenile idiopathic arthritis. Orencia may be used as monotherapy or concomitantly with methotrexate. Orencia is also indicated for the treatment of adult patients with active psoriatic arthritis.<sup>5</sup>

The labeling for Orencia states that it should not be administered concomitantly with TNF antagonists or with other biologic RA therapy, such as Kineret (anakinra), an interleukin-1 receptor antagonist. In controlled clinical trials in patients with adult RA, patients receiving concomitant Orencia and TNF antagonist therapy experienced more infections (63%) and serious infections (4.4%) compared to patients treated with only TNF antagonists (43% and 0.8%, respectively). These trials failed to demonstrate superiority of results with concomitant administration of Orencia and TNF antagonists. Therefore, clinical evidence does not support concurrent therapy with Orencia and TNF antagonists.<sup>5</sup>

Orencia prefilled syringes and Orencia ClickJect autoinjectors are intended for use under the guidance of a physician or healthcare practitioner. After proper training in subcutaneous injection technique, a patient or caregiver may inject with Orencia if a physician/healthcare practitioner determines that it is appropriate. Patients and caregivers should be instructed to follow the directions provided in the Instructions for Use section of the prescribing information for additional details on medication administration.<sup>5</sup>

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## Policy History/Revision Information

| Date       | Summary of Changes   |
|------------|--|
| 08/01/2022 | <p><b>Application</b><br/><i>Texas</i></p> <ul style="list-style-type: none"> <li>• Added language to indicate this Medical Benefit Drug Policy does not apply to the state of Texas; refer to the state’s Medicaid clinical policy</li> </ul> <p><b>Coverage Rationale</b></p> <ul style="list-style-type: none"> <li>• Removed instruction to refer to the current release of the [listed] InterQual® guideline for medical necessity clinical coverage criteria</li> <li>• Removed language indicating the prescriber attestation that the patient or caregiver is not able to be trained or is physically unable to administer Orenzia FDA labeled for self-administration; the prescriber must submit an explanation</li> <li>• Added language to indicate Orenzia is: <ul style="list-style-type: none"> <li>○ Proven and medically necessary for the treatment of the following indications when the criteria listed in the policy are met: <ul style="list-style-type: none"> <li>▪ Polyarticular juvenile idiopathic arthritis</li> <li>▪ Rheumatoid arthritis</li> <li>▪ Psoriatic arthritis</li> <li>▪ Chronic graft-versus-host disease (GVHD)</li> <li>▪ Acute graft-versus-host disease (aGVHD)</li> <li>▪ Immune checkpoint inhibitor-related toxicities</li> </ul> </li> <li>○ Unproven and not medically necessary for the treatment of: <ul style="list-style-type: none"> <li>▪ Multiple sclerosis</li> <li>▪ Systemic lupus erythematosus</li> <li>▪ Uveitis associated with Behçet’s disease</li> </ul> </li> </ul> </li> </ul> <p><b>Applicable Codes</b></p> <ul style="list-style-type: none"> <li>• Added list of applicable ICD-10 diagnosis codes</li> </ul> <p><b>Supporting Information</b></p> <ul style="list-style-type: none"> <li>• Added <i>Background, Clinical Evidence, FDA, and References</i> sections</li> <li>• Archived previous policy version CS2022D0039V</li> </ul> |

## Instructions for Use

This Medical Benefit Drug Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the federal, state or contractual requirements for benefit plan coverage must be referenced as the terms of the federal, state or contractual requirements for benefit plan coverage may differ from the standard benefit plan. In the event of a conflict, the federal, state or contractual requirements for benefit plan coverage govern. Before using this policy, please check

the federal, state or contractual requirements for benefit plan coverage. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Medical Benefit Drug Policy is provided for informational purposes. It does not constitute medical advice.

UnitedHealthcare may also use tools developed by third parties, such as the InterQual<sup>®</sup> criteria, to assist us in administering health benefits. The UnitedHealthcare Medical Benefit Drug Policies are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.