### Specialist Working Group for Immunology

#### Proposed changes to the *Criteria for the clinical use of intravenous immunoglobulin in Australia, Second Edition*

| **ITEM** | **CRITERIA FOR THE CLINICAL USE OF INTRAVENOUS IMMUNOGLOBULIN IN AUSTRALIA, SECOND EDITION (CRITERIA)** | **PROPOSED REVISIONS TO THE CRITERIA**  | **SWG RATIONALE FOR PROPOSED CHANGE****(A) Administrative)****(B) Progressive** **(C) Programmed** |
| --- | --- | --- | --- |
| **Condition Name** | **Anti-neutrophil cytoplasmic antibody (ANCA) [Proteinase 3 (PR3) or myeloperoxidase (MPO)]- positive systemic necrotising vasculitis** | **Anti-neutrophil cytoplasmic antibody (ANCA) [Proteinase 3 (PR3) or myeloperoxidase (MPO)]- positive systemic necrotising vasculitis** |  |
| **Specialty** | Immunology | Rheumatology, Immunology |  |
| **Chapter** | 6 | 6 |  |
| **Specific Conditions** |  | * ANCA (PR3 or MPO)-positive idiopathic rapidly progressive glomerulonephritis
* Eosinophilic granulomatosis with polyangiitis (Churg-Strauss Syndrome)
* Granulomatosis with polyangiitis (Wegener Granulomatosis)
* Microscopic polyangiitis
 | The names of the 4 clinical syndromes within ANCA have been reviewed and revised where updated names are in use. (A) |
| **Level of Evidence** | Evidence of probable benefit ([Category 2a](http://www.blood.gov.au/pubs/ivig/development-and-maintenance-of-the-criteria.html#el-2a)). | Evidence of probable benefit ([Category 2a](http://www.blood.gov.au/pubs/ivig/development-and-maintenance-of-the-criteria.html#el-2a)). |  |
| **Justification for Evidence Category** | The Biotext (2004) review found one randomised trial of 34 patients and one case series of 7 patients with ANCA-associated systemic vasculitis (AASV). Different AASVs were represented in the studies. The Biotext (2004) review concluded that there is possible benefit in the treatment of AASV with IVIg if disease activity persists after standard therapy. | The Biotext (2004) review found one randomised trial of 34 patients and one case series of 7 patients with ANCA-associated systemic vasculitis (AASV). Different AASVs were represented in the studies. The Biotext (2004) review concluded that there is possible benefit in the treatment of AASV with IVIg if disease activity persists after standard therapy. | Reviewed and unchanged.  |
| **Description and Diagnostic Criteria** | ANCA associated systemic necrotising vasculitides are life-threatening immune-mediated inflammatory diseases comprising one of four clinical syndromes:1. Wegener granulomatosis;
2. microscopic polyangiitis;
3. Churg–Strauss syndrome; and
4. ANCA (PR3 or MPO)-positive idiopathic rapidly progressive glomerulonephritis.

In these cases the ANCA specificity is directed against the neutrophil cytoplasmic antigens PR3 and MPO. ANCA that lack MPO or PR3 specificity tend to be non-specific. Biopsy of affected tissue is required to establish the diagnosis.Standard combinations of corticosteroids and cytotoxic immunosuppression are generally effective at controlling disease, but relapses are common. IVIg has a limited role as one of several therapeutic options in relapsing disease. | ANCA associated systemic necrotising vasculitides are life-threatening immune-mediated inflammatory diseases comprising one of four clinical syndromes:1. Granulomatosis with polyangiitis (Wegener Granulomatosis);
2. Microscopic polyangiitis;
3. Eosinophilic granulomatosis with polyangiitis (Churg-Strauss Syndrome);
4. ANCA (PR3 or MPO)-positive idiopathic rapidly progressive glomerulonephritis.

In these cases the ANCA specificity is directed against the neutrophil cytoplasmic antigens PR3 and MPO. ANCA that lack MPO or PR3 specificity tend to be non-specific. Biopsy of affected tissue is required to establish the diagnosis.Standard combinations of corticosteroids and cytotoxic immunosuppression are generally effective at controlling disease, but relapses are common. IVIg has a limited role as one of several therapeutic options in relapsing disease | Diagnostic criteria have clinical syndrome names revised.  |
| **Diagnosis is required** |   | Yes | Which Speciality | Rheumatologist Immunologist | Treating specialists have been definded (A) |
| **Diagnosis must be verified** |   | No | Which Specialty |  |  |
| **Exclusion Criteria** | Initial therapy | First line or initial treatment for ANCA | Wording revised (A) |
| **Indication for use** | Control of vasculitic activity in rare cases of ANCA-positive systemic necrotising vasculitis failing to respond to corticosteroids and cytotoxic immunosuppression. | **ANCA positive systemic necrotising vasculitis failing to respond to corticosteroids and cytotoxic immunosuppression****Relapse in ANCA positive systemic necrotising vasculitis resistant following response to Ig therapy** | Two indications have been used.All qualifying patients will only receive 6 months treatment. A second indication supports the further treatment of responders who relapse following cessation of Ig therapy. Different qualifying and review criteria will apply. (A) |
| **Qualifying Criteria** | MPO or PR3 ANCA-positive systemic necrotising vasculitis with both of the following:1. Current (or within the previous six months) standard cytotoxic immunosuppressive ANCA-vasculitis regimens;

AND1. Persistent active disease.
 | **ANCA positive systemic necrotising vasculitis failing to respond to corticosteroids and cytotoxic immunosuppression*** Evidence of active MPO or PR3 positive vasculitis confirmed by serology and an ANCA level above the normal reference range unless negative ANCA level with active vasculitis

AND* At least two reactive indicators when assessed by Birmingham Vasculitis Activity Score (BVAS) version 3 (v3) (score > 5), Erythrocyte Sedimentation Rate (ESR) (score >5) and C-reactive protein (CRP) (score >6).

AND* Persistent disease despite standard Corticosteroid therapy for 6 months **u**nless steroid therapy is contraindicated

AND * A trial of Rituximab has failed to demonstrate a response unless Rituximab is inaccessible or contraindicated

AND * At least two other immunosuppressant agents have been trialled in addition to steroids and Rituximab unless immunosuppressant medication is contraindicated.

The initial authorisation period is six months only.The reporting of clinical outcome data after six months treatment is strongly encouraged as a demonstrated clinical response to Ig therapy is required for eligibility for further authorisation, should the patient relapse in the future.**Relapse in ANCA positive systemic necrotising vasculitis resistant following response to Ig therapy*** Patient has previously demonstrated a clinical response following six months Ig therapy as measured by a reduction in at least one of Erythrocyte Sedimentation Rate (ESR), C-reactive protein (CRP) or ANCA level or Birmingham Vascular Activity Score (BVAS version 3).

AND* The patient has evidence of active vasculitis as assessed by increased reactivity in at least one of ESR, CRP, ANCA or BVAS compared to level after Ig therapy, and a description of the relapse and active vasculitis requiring treatment is provided.
 | Qualifying criteria have been defined to expand diagnostic requirements and gather data to be used as a comparison (to ensure response to Ig) should patients relapse and require further treatment in the future. (A) Requirements consistent with the original criteria have been used and revised to include rituximab treatment (if available) and steroid treatment. The Immunosuppressant therapy options are : * Cyclophosphamide
* Azathioprine
* Mycophenolate
* Methotrexate

Script added to explain the treatment being authorised.   |
| **Review Criteria** | * Six-month review assessing evidence of clinical benefit.
* Reduction in the Birmingham vasculitis activity score of more than 50% after three months.
* Erythrocyte sedimentation rate and C-reactive protein concentration.
* ANCA titre.
 | **ANCA positive systemic necrotising vasculitis failing to respond to corticosteroids and cytotoxic immunosuppression**Review is not mandated for this indication however the following criteria may be usful in assessing the effectiveness of therapy. * Evidence of clinical benefit and reposnse to treatment is assessed by a reduction in at least one indicator of Erythrocyte Sedimentation Rate (ESR), C-reactive protein (CRP) level, ANCA level or Birmingham Vascular Activity Score (BVAS) version 3 (compared to qualifying value).
* Detail the clinical response to treatment.

The reporting of clinical outcome data is encouraged as demonstrated clinical response to Ig therapy is required for eligibility for further authorisation, should the patient relapse in the future. **Relapse in ANCA positive systemic necrotising vasculitis resistant following response to Ig therapy**Six monthly review by a Rheumatologist or clinical Immunologist is required to assess evidence of clinical benefit. Once the patient has been in clinical remission for two years after relapse, cessation of Ig therapy should be considered.**On review of an initial authorisation period*** Patients demonstrate evidence of clinical benefit and response to treatment as assessed by reduction in at least one indicator of Erythrocyte Sedimentation Rate (ESR), C-reactive protein (CRP) level, ANCA level or Birmingham Vasculitis Activity (BVAS) Score compared to the original qualifying value.

**On review of a continuing authorisation period**Once the patient has been in clinical remission for two years, a trial off therapy should be considered. * Patients demonstrate evidence of clinical benefit and response to Ig treatment as assessed by stabilisation of at least one indicator of Erythrocyte Sedimentation Rate (ESR), C-reactive protein (CRP) level, ANCA level or Birmingham Vasculitis Activity (BVAS) Score compared to the previous review score

AND* A description of the patient’s clinical response to Ig treatment is provided

AND * A trial off Ig therapy is planned unless a valid reason is provided.
 | Only 6 months treatment is approved initially for all patients. If patients relapse within 6 months from cessation, re-entry is supported with eligibility criteria requiring demonstration of previous response to Ig treatment and measurable relapse. Outcome data has been defined for patients on the first 6 months of treatment and encouragement given for recording the data in case patients should relapse. Once patients do relapse, they are eligible for maintenance therapy provided they have demonstrated a response to the first treatment. (A) Review criteria have been defined and a further trial may be indicated once patients are stable for 2 years. (A)Patients that have then demonstrated relapse, formally responded and then stabilized, will remain on treatment with an annual review. (A) |
| **Dose** | 2 g/kg in single or divided doses.**Dosing above 1 g/kg per day is contraindicated for some IVIg products.****Refer to the current product information sheet for further information.****The aim should be to use the lowest dose possible that achieves the appropriate clinical outcome for each patient.** | **Induction Dose** - 2 g/kg in divided doses**Maintenance Dose -** 0.4-1g/Kg 4 to 6 weeklyThe aim should be to use the lowest dose possible that achieves the appropriate clinical outcome for each patient **.**Dosing above 1 g/kg per day is contraindicated for some IVIg products.**Refer to the current product information sheet for further information.****.** | Dosing script has been modified given that induction doses of 2g/Kg should not be given as a single dose. (A)Maintenance dose has also been defined. There was insufficient evidence to justify dosing at up to 2g/Kg continuously and maintenance dosing of 0.4g to 1g/Kg was seen to be sufficient. (B) |
| **BIBLIOGRAPHY** |
| Biotext 2004, ‘Summary data on conditions and papers’, in *A systematic literature review and report on the efficacy of intravenous immunoglobulin therapy and its risks*, commissioned by the National Blood Authority on behalf of all Australian Governments, pp. 248–50. Available from: http://www.nba.gov.au/pubs/pdf/report-lit-rev.pdfFoster, R, Rosenthal, E, Marques, S, et al 2006, ‘Primary systemic vasculitis: treatment of difficult cases’, *Lupus*, vol. 15, no. 3, pp. 143–7.Jayne, DR & Rasmussen, N 1997, ‘Treatment of antineutrophil cytoplasm autoantibody-associated systemic vasculitis: initiatives of the European Community Systemic Vasculitis Clinical Trials Study Group’, *Mayo Clinic Proceedings*, vol. 72, no. 8, pp. 737–47.Jayne, DR, Chapel, H, Adu, D, et al 2000, ‘Intravenous immunoglobulin for ANCA-associated systemic vasculitis with persistent disease activity’, *Quarterly Journal of Medicine*, vol. 93, no. 7, pp. 433–9.Jayne, DR, Davies, MJ, Fox, CJ, et al 1991, ‘Treatment of systemic vasculitis with pooled intravenous immunoglobulin’, *Lancet*, vol. 337, no. 8750, pp. 1137–9.Jennette, JC, Falk, RJ, Andrassy, K, et al 2004, ‘Nomenclature of systemic vasculitides: proposal of an international consensus conference’, *Arthritis & Rheumatism*, vol. 37, no. 2, pp. 187–92 (Chapel Hill Consensus criteria).Orange, JS, Hossny, EM, Weiler, CR, et al 2006, ‘Use of intravenous immunoglobulin in human disease: A review of primary evidence by members of the Primary Immunodeficiency Committee of the American Academy of Allergy, Asthma and Immunology’, *Journal of Allergy and Clinical Immunology*, vol. 117, no. 4, pp. S525–53. |
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**Cicatricial pemphigoid (Anti-neutrophil cytoplasmic antibody (ANCA) [Proteinase 3 (PR3) or myeloperoxidase (MPO)]- positive systemic necrotising vasculitis CP) or m**