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PBAC Secretariat
MDP 952
Pharmaceutical Evaluation Branch
Department of Health and Aged Care
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By email to: pbac@health.gov.au

Re: Submission relating to ravulizumab (Ultomiris®) to PBAC meeting November 2024

MS Australia is writing to the Pharmaceutical Benefits Advisory Committee (PBAC) in support of the request to include ravulizumab (Ultomiris®) on the Pharmaceutical Benefits Scheme (PBS) for the treatment of adults living with neuromyelitis optica spectrum disorder (NMOSD).

MS Australia is Australia's national MS not-for-profit organisation that empowers researchers to identify ways to treat, prevent and cure MS, seeks sustained and systemic policy change via advocacy, and acts as the champion for Australia's community of people affected by MS. MS Australia is the largest Australian not-for-profit organisation dedicated to funding, coordinating, educating and advocating for MS research as part of the worldwide effort to solve MS. MS Australia collaborates closely with our member organisations and various national and international bodies to help meet the needs of people affected by MS. The NMOSD community in Australia is not represented by a national peak body, and as NMOSD and MS have some similarities, MS Australia is proud to advocate on behalf of those living with NMOSD.

As NMOSD is a rare disease featuring demyelination of nerve fibres (similar to, but different from MS) the medical care often falls under MS specialists. People living with NMOSD also often come to MS Australia and member organisations for assistance and advocacy, and MS Australia funds research into NMOSD. One area we are all passionate about is the provision of affordable and accessible treatments that can improve the lives of people with NMOSD.

Declaration of interest

MS Australia is making this submission as we have an interest in the health and wellbeing of all people with MS and NMOSD. MS Australia is the national peak body for people living with MS in Australia. We work with governments at all levels, engaging on the issues that concern the lives of people living with MS, their families and carers, the community, and the economy. We declare that we have in the past received funding support from pharmaceutical companies (3% of total revenue for FY24), with an interest in MS in the form of grants for projects and support of our national MS research scientific conference.

About NMOSD

In NMOSD, the body's immune system attacks the optic nerve, spinal cord and some areas of the brain through the complement system, targeting the aquaporin-4 (AQP4) water channel in astrocytes. There are many symptoms that overlap with MS. Attacks on the optic nerve can cause significant vision problems while attacks on the spinal cord and cause problems with mobility, numbness, pain and problems with the bladder and bowel. Differential diagnosis of MS from NMOSD is critical because disease modifying treatment (DMT) for MS, such as interferon- β, fingolimod, natalizumab, and alemtuzumab, are inefficacious in or may aggravate NMOSD.[1] NMOSD can be diagnosed and distinguished from MS reliably through the detection of antibodies to AQP4 using a commercial fixed-cell assay.[2]

About 90% of people with NMOSD experience a relapsing disease course.[2] The rates of permanent visual disability and reduced mobility are much higher than in other neuroinflammatory conditions, including MS.[3] There is a high likelihood of severe relapses when NMOSD is left untreated.

Pain, bladder dysfunction and bowel dysfunction are the symptoms that have the most negative physical impact on quality of life.[3] Pain, often resulting from myelitis, is the most distressing symptom in NMOSD and strongly correlates with quality of life. Around 85% of people with NMOSD experience pain, particularly in their chest, waist, legs and back. Emotional and physical fatigue affect up to 70% of people living with NMOSD. Additionally, around 78% of people living with NMOSD experience bladder dysfunction, often more severe than in MS, and a similar percentage deal with bowel dysfunction.

It is estimated that there are 0.70 per 100,000 people living with NMOSD in Australia and New Zealand.[4] It is three times more common in the Asian population compared to the rest of the Australian and New Zealand population and six times more common in females than in males. NMOSD is most prevalent at 40-59 years in women and at 60-69 years in men.

About ravulizumab (Ultomiris®)

Ravulizumab (Ultomiris®) is a monoclonal antibody and C5 complement inhibitor. In NMOSD, attacks on astrocytes are mediated via the complement system. Inhibiting the C5 protein of the complement system prevents the formation of the membrane attack complex that destroys the astrocytes.

A recent phase 3 clinical trial showed that ravulizumab resulted in a 98.6% ($p < 0.0001$) reduction in the risk of relapse in people with NMOSD who were AQP4 antibody positive.[5] People receiving ravulizumab also had less mobility-associated disabilities. Ravulizumab is well-tolerated, with mild to moderate side effects. The most common side effect was headache which occurred in about a quarter of participants.

Current treatments for NMOSD

There are currently no treatments specific to NMOSD included on the PBS. Acute relapses are treated with steroids and plasma exchange. Current treatments for relapse prevention include general immunosuppressants such as corticosteroids, azathioprine, mycophenolate, methotrexate, cyclophosphamide and rituximab, although they do not completely prevent relapses, and are considered less effective than biological treatments (i.e., monoclonal antibodies) as long-term therapies.[6]

There is a clear need to have additional treatment options for Australians living with NMOSD.

Impact on people living with NMOSD

NMOSD relapses are generally more severe, prolonged and frequent compared to MS relapses. Unlike in MS, most people do not recover completely from NMOSD relapses and are potentially more likely to be left with permanent disability, and at an earlier stage. Therefore, preventing relapses in people living with NMOSD is crucial.

The personal impact of NMOSD on the quality of life of the person diagnosed and their family and friends can be devastating. This is exemplified by the following excerpts from previous case studies undertaken by MS Australia with people living with NMOSD:

"My marriage broke up because of NMO, the strain that it put on our relationship was enormous.... That cost to me was enormous."

"The children witnessing me having these massive spasm attacks, being in bed, not being able to speak or move. It's traumatic for them. I know my daughter, especially, being a little bit younger, was traumatized."

"Initially, it was horrendous. You can't see, you can't walk. It affects relationships. I don't go to work and I don't have that feeling of being capable..."

"I haven't been able to work. I can't work because I don't have the stamina anymore. Even one phone conversation will exhaust me."

"Well, my peripheral vision has gone in both eyes. I'm legally blind in the right eye. I can't drive. Just doing standard chores around the house, like washing up, or just cooking things. I've got to sit down."

There is a great unmet need for relapse prevention in NMOSD, especially compared to MS, for which there are now 14 subsidised therapies to reduce relapses. Ravulizumab has been shown to significantly reduce the risk of relapse in people living with NMOSD and requires infusion every 8 weeks following the loading dose.[5, 6]

MS Australia supports affordable access to all proven treatment options to increase the opportunity for people with NMOSD to access effective therapy. We strongly support PBS listing of ravulizumab for people living with NMOSD.

The availability of ravulizumab on the PBS for people living with NMOSD would improve quality of life and help reduce the burden on Australia's healthcare system, including the impact on the National Disability Insurance Scheme (NDIS).

MS Australia will continue to advocate for the inclusion on the PBS of all medications that have been shown to be efficacious in the treatment of NMOSD.

References

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