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MS Research Australia is writing to support the inclusion of the cladribine tablets (Mavenclad) on the Pharmaceutical Benefits Scheme (PBS) for people with relapsing MS.

As the largest national not-for-profit organisation dedicated to funding MS discoveries and coordinating MS research in Australia, we are proud to advocate on behalf of people affected by this disease. One area of particular importance to MS Research Australia and the MS community, is the affordable availability of treatments that have been shown to be effective in clinical trials to reduce the impact of MS.

The inclusion of Mavenclad on the list PBS-supported treatments for MS is vital to maximising the choice of affordable and evidence-based treatments available to people with MS.

MS affects everyone differently and people also respond to treatments and their potential side effects differently. Life circumstances, such as family planning, career and travel, as well as other health conditions, can also greatly affect treatment options and decisions. Even geography can affect treatment choices with close access to hospitals and health professionals for treatment administration and/or monitoring being a big consideration relating to some medications for people with MS living outside of major metropolitan areas.

The dosing schedule for cladribine is one or two tablets taken for 5 consecutive days in the first week which is then repeated 4 weeks later, and then again one year later. Therefore, the treatment regime for cladribine provides a potentially convenient option for people with MS for whom other medication and dosing schedules are not suitable. For examples those whom are located rurally and face a geographical barrier due to the regular dosing and monitoring schedules of other medication.

Finding the right treatment option for every individual with MS is paramount as suboptimal treatment can lead to MS relapses causing irreparable damage to the central nervous system leading to an increased symptom burden and irreversible accumulation of disability. This in turn leads to an increased burden on the healthcare system and a further reduction in the quality of life of patients and their families. MS costs the Australian community over $1billion per year, with half of that cost attributed to lost productivity for people with MS and their families[1]. The impact of MS on quality of life can be equivalent to that experienced by people with stroke and end-stage cancer[1].

Cladribine appears to be selectively activated in lymphocytes, and non-activated cladribine is removed quickly from all other cells[2]. This provides a rapid and selective reduction of the lymphocytes thought to be involved in MS relapses, leaving other cells relatively unaffected.

Cladribine has been shown in clinical trials to be an effective treatment to significantly reduce the risk of relapses. In the CLARITY clinical trial, which involved 1326 people, people receiving cladribine tablets were compared against those receiving placebo. This trial showed that 3.5mg/kg cladribine

could reduce the MS relapse rate by 55%[3] and also greatly reduced the number of new lesions in the central nervous system[4]. The proportion of patients with no active gadolinium enhancing lesions at study end was 86.8% on cladribine versus 48.3% on placebo ($p < 0.001$). Furthermore, it has been shown that cladribine tablets significantly reduced brain atrophy in comparison with the placebo treatment, with residual rates in treated patients being close to the physiological rates[5].

Cladribine has been shown to be largely well tolerated by people with MS. In the CLARITY clinical trial, the most common adverse effects included lymphopenia, a slight increase in infections (47.7% vs 42.5% in the placebo), and headaches.

Following the CLARITY trial there has also been a two-year extension study which showed that approximately 75% of patients successfully treated with cladribine remained relapse free for the duration of the extension study[6]. Thus two years of cladribine treatment can induce a durable clinical benefit for at a least a further two years in the absence of ongoing treatment.

MS Research Australia supports affordable access to all proven treatment options to increase the opportunity for people with MS and their doctors to find effective therapies suited to their individual circumstances. Reducing the frequency of disabling relapses will improve quality for people with MS and their loved ones, enabling their full participation in social and family life, and employment.

MS Research Australia appreciates the opportunity to make this submission and applauds the Committee for seeking the views of patients and the wider community as part of the process of considering new MS treatments for inclusion on the PBS.

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