

## GUEST EDITORIAL

# The need for holistic management of behavioral disturbances in dementia

Dementia is now the leading cause of admission to residential aged care facilities (RACF) in the developed world (Van Rensbergen and Nawrot, 2010), with prevalence rates among residents estimated to be approximately 70% (Zimmerman *et al.*, 2014). In addition, dementia is now the 4th leading cause of death in high-income countries with this expected to rise to the 3rd leading cause of death by 2030 (World Health Organization, 2015). Despite the prevalence of the condition, the amount of teaching time devoted to dementia in medical school curricula remains low and does not adequately prepare graduates for their work as doctors (Tullo and Allan, 2011; Tullo and Gordon, 2013). As a consequence, many general practitioners feel their level of confidence in managing behavioral and psychological symptoms of dementia (BPSD) is very low (Buhagiar *et al.*, 2011).

The rate of prescription of any psychotropic drug for nursing home residents is estimated to exceed 70% (Ruths *et al.*, 2012), and in Australia the rate of antipsychotic prescriptions for persons over the age of 75 years exceeds that of those between 15 and 24 by a factor of 4 for males, and 5.5 for females (Australian Bureau of Statistics, 2011a). This is despite those aged over 75 years being far less likely to consult a psychiatrist than younger age groups (Australian Bureau of Statistics, 2011b). The rates of appropriate psychotropic prescribing for BPSD within RACF have been determined to be as being as low as 10% (van der Spek *et al.*, 2016).

The potential reasons for these very high rates of antipsychotic use in residential care are manifold: low levels of knowledge about dementia in both doctors and direct care staff; pressure on general practitioners to prescribe (Zuidema *et al.*, 2011); poor levels of training of RACF staff; the lack of time, training, commitment, and skill amongst RACF staff to adequately assess behaviors and to administer behavioral interventions; organizational culture (Sawan *et al.*, 2016), and the lack of accessible alternatives to pharmacological management (Ervin *et al.*, 2014) have all been cited as possible explanations.

Antipsychotics have a range of unwanted side effects in older persons that contribute to a clear excess of morbidity, cerebrovascular adverse events (Ma *et al.*, 2014), increased risk of

hospital admission, and death (Langballe *et al.*, 2014)).

The overuse of psychotropic medications is not limited to antipsychotics, with the use of any psychotropic medication among RACF residents estimated to be around 50% (Snowdon *et al.*, 2009).

Whilst published guidelines emphasize the importance of individual care plans (National Collaborating Centre for Mental Health, UK, 2007), person-centered management of BPSD and the use of medications only when such interventions fail (NHMRC Guideline Adaptation Committee, 2016) the rates of psychotropic drug use in residential care facilities strongly suggest that these guidelines are not being followed. Indeed, there has been a clear trend toward increasing rates of psychotropic drug prescription in nursing homes over time (Ruths *et al.*, 2012).

It is acknowledged that currently available pharmacological treatments have only modest efficacy, and BPSD represent a complex interplay of biological, psychological, and social factors that require a high degree of clinical expertise to assess and manage (Cerejeira *et al.*, 2012). The evidence seems clear, however, that biological treatments are being overused at the expense of psychosocial treatments, to the detriment of patients.

The challenge for clinicians is two-fold, then. Not only should we be making efforts to reduce psychotropic medication use in people with dementia, but the availability of effective psychosocial interventions for BPSD must also be increased in order that such a reduction might occur.

One such model of comprehensive biopsychosocial management of BPSD, the use of severe behavior response teams (SBRT) is currently in place in Australia. Multidisciplinary “Dementia Flying Squads” were proposed following a Ministerial Dementia Forum, involving over 60 industry stakeholders and experts that took place in Australia in September 2014.

There is a small international literature around such “Flying Squads,” mainly in relation to pilot projects that have operated in Australia, the United Kingdom, and the USA. Such models share a number of common features. First, they emphasize outreach or in-home care to the client’s place of residence, with service initially being provided in response to a crisis. Such teams are generally

multidisciplinary, with medical specialist support. Interventions initially focus on the assessment and management of behaviors, supplemented by education and support to care providers.

One such project, the Kansas Bridge Project (Johnson *et al.*, 2012) demonstrated reductions in a range of neuropsychiatric symptoms in the intervention group along with lower rates of caregiver distress and a delay in nursing home placement for community dwelling patients.

The Care Home Inreach Programme (Chan and Curtice, 2011) examined the effectiveness of monthly visits from a multidisciplinary team to four care homes to review residents displaying BPSD, over a period of six months. The primary interventions were medication reviews, psychoeducation and a range of psychological, behavioral and complementary approaches, such as relaxation and music therapy. The evaluation demonstrated improvements in staff confidence and concluded that cohesive, extensive, and ongoing education and training of care staff was an essential component of the intervention provided. The importance of community psychiatric nurses was emphasized in terms of embedding both culture change and a non-pharmacological approach that allowed a move from traditional medical models of care.

Implementing “flying squads” on a national scale poses numerous challenges, and SBRT is unique in terms of its national reach and holistic model of care. The few pilot projects described in the literature are all significantly resource-intensive, and Australia has approximately 2,700 care homes with over two hundred thousand residents. Ultimately, SBRT commenced national operations in Australia in November 2015, targeting residents within Commonwealth-funded aged care facilities across the nation.

The SBRT model was implemented under a single national service provider, HammondCare, and was intended to manage behavioral disturbances occurring within the top three tiers of the Brodaty Triangle (Brodaty *et al.*, 2003). Key elements of the model emphasize a mobile and rapidly-responsive multidisciplinary workforce (Dementia Consultants) backed up by medical specialist support, an intensive assessment process, and multiple service contacts per case within a longer-term case-management framework. The service was mandated to make initial contact with the referring facility within 4 h of a referral being received, and to provide an on-site, face-to-face response within 48 h, regardless of whether the referral came from a metropolitan, regional, or remote facility.

Acceptance of a referral into the SBRT is based on an initial risk assessment. Immediate

mitigation of risk and provision of support to the facility is emphasized initially, supported by access to limited brokerage funding to permit short-term provision of 1:1 nursing assistance if this is considered necessary. An intensive assessment process, invariably involving specialist medical input and occasionally extending across several days, then ensues, followed by a comprehensive suite of recommendations being made to the facility regarding management of problem behaviors. The team member providing the recommendations remains involved with the facility to evaluate the effectiveness of the recommendations and to support their implementation. The service can work with referrals for an initial case-management period of up to six months to achieve improvements in behavior and ensuring the maintenance of any gains.

Behavioral interventions are prioritized within the SBRT model, with medication management being de-emphasized. Given the complexity of referrals in the upper reaches of the Brodaty triangle, however, review of each case by an appropriately qualified medical specialist is mandatory within the model. This medical support is provided by a team of approximately 20 geriatricians and old-age psychiatrists (Clinical Associates), who participate on a 365-day roster in order to provide telephone and internet-based support to the multidisciplinary clinicians within the team.

A key risk related to the provision of a service such as this is that its implementation does not lead to a withdrawal of other service providers who currently operate within the same space. SBRT is intended to complement existing services, rather than replace them. Clients who already have a treating specialist physician, or are under the care of specialist public old-age psychiatry or geriatric outreach services continue to use these services for specialist medical review unless it is the explicit wish of these providers to also engage the opinion of an SBRT Clinical Associate.

An early analysis of referrals to SBRT reveals an over-representation of younger, male clients in relation to their prevalence within the broader residential aged care population. Those aged under 75 make up 31% of all referrals thus far, despite this group comprising only 13% of Australia’s residential aged care population (Australian Institute of Health and Welfare, 2016). Whilst Alzheimer’s disease is felt to represent around 70% of all cases of dementia, around 60% of SBRT referrals have a diagnosis other than that of Alzheimer’s disease. Aggression (95%), agitation (82%), anxiety (55%), depression/dysphoria (52%), psychosis (39%), and disinhibition (14%) are the commonest

symptoms leading to referrals, with most referrals having symptomatology across several of these domains.

Factors identified by Dementia Consultants as contributing to behaviors include the presence of unrecognized or under-treated pain (70%), environmental factors (60%), limited dementia knowledge on the part of carers (38%), and a limited knowledge of the person's life and social history (38%).

The Commonwealth has committed to funding SBRT through to June 2019. The service will be subject to ongoing research evaluation throughout 2017, with the main clinical outcomes of interest being changes in the relevant domains of the Neuropsychiatric Inventory Nursing Home Version (Wood *et al.*, 2000) and observed changes in psychotropic prescription rates.

If the SBRT model of care, the first of its kind to be implemented on a national scale anywhere in the world, can be demonstrated to be effective, it may serve as a useful template to guide the development of similar services globally.

### Conflict of interest

Asst. Prof. Macfarlane and Asst. Prof. Cunningham are employees of HammondCare, and have clinical (Macfarlane) and management responsibilities within the Severe Behaviour Response Team programme.

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