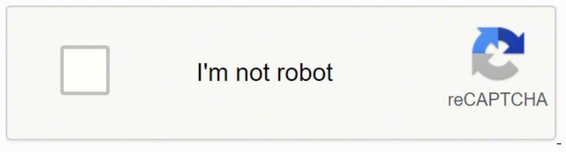

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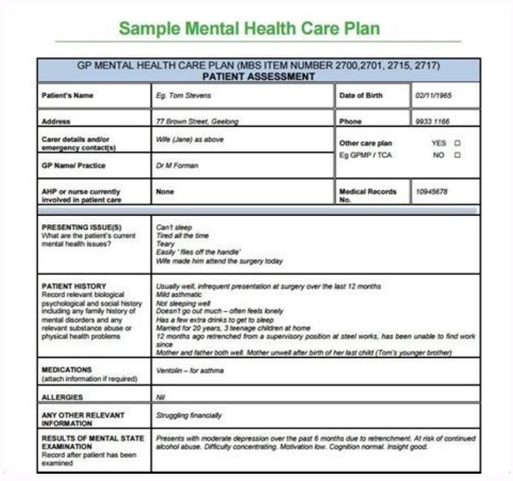

Sample Mental Health Care Plan

GP MENTAL HEALTH CARE PLAN (MBS ITEM NUMBER 2700,2701, 2715, 2717) PATIENT ASSESSMENT			
Patient's Name	*Eg. Tom Stevens*	**Date of Birth**	*02/11/1965*
Address	*77 Brown Street, Geelong*	**Phone**	*9933 1166*
Carer details and/or emergency contact(s)	*Wife (Jane) as above*	**Other care plan** Eg GPMP / TCA	YES ☐ NO ☐
GP Name/ Practice	*Dr M Forman*		
AHP or nurse currently involved in patient care	**None**	**Medical Records No.**	*10945678*
PRESENTING ISSUE(S) What are the patient's current mental health issues?	*Can't sleep* *Tired all the time* *Teary* *Easily ' flies off the handle'* *Wife made him attend the surgery today*		
PATIENT HISTORY Record relevant biological psychological and social history including any family history of mental disorders and any relevant substance abuse or physical health problems	*Usually well, infrequent presentation at surgery over the last 12 months* *Mild asthmatic* *Not sleeping well* *Doesn't go out much – often feels lonely* *Has a few extra drinks to get to sleep* *Married for 20 years, 3 teenage children at home* *12 months ago retrenched from a supervisory position at steel works, has been unable to find work since* *Mother and father both well. Mother unwell after birth of her last child (Tom's younger brother)*		
MEDICATIONS (attach information if required)	*Ventolin – for asthma*		
ALLERGIES	*Nil*		
ANY OTHER RELEVANT INFORMATION	*Struggling financially*		
RESULTS OF MENTAL STATE EXAMINATION Record after patient has been examined	*Presents with moderate depression over the past 6 months due to retrenchment. At risk of continued alcohol abuse. Difficulty concentrating. Motivation low. Cognition normal. Insight good.*		

1. Similaridades (conceituação)
"De que maneira eles são parecidos?"
"Uma banana e uma laranja".
(Caso ocorra falha total: "eles não são parecidos" ou falha parcial: "ambas têm casca", ajude o paciente dizendo: "tanto a banana quanto a laranja são..."; mas credite 0 para o item: não ajude o paciente nos dois itens seguintes).
"Uma mesa e uma cadeira".
"Uma tulipa, uma rosa e uma margarida".
Escore (apenas respostas de categorias [frutas, móveis, flores] são consideradas corretas).
- Três corretas: 3
- Duas corretas: 2
- Uma correta: 1
- Nenhuma correta: 0

2. Fluência lexical (flexibilidade mental)
"Diga quantas palavras você puder começando com a letra 'S', qualquer palavra exceto sobrenomes ou nomes próprios".
Se o paciente não responder durante os primeiros 5 segundos, diga: "por exemplo, sapo". Se o paciente fizer uma pausa de 10 segundos, estimule-o dizendo: "qualquer palavra começando com a letra 'S'". O tempo permitido é de 60 segundos.
Escore (repetições ou variações de palavras [sapato, sapateiro], sobrenomes ou nomes próprios não são contados como respostas corretas).
- Mais do que nove palavras: 3
- Seis a nove palavras: 2
- Três a cinco palavras: 1
- Menos de três palavras: 0

3. Série motora (programação)
"Olhe cuidadosamente para o que eu estou fazendo".
O examinador, sentado em frente ao paciente, realiza sozinho, três vezes, com sua mão esquerda a série de Luria "punho-borda-palma".
"Agora, com sua mão direita faça a mesma série, primeiro comigo, depois sozinho".
O examinador realiza a série três vezes com o paciente, então diz a ele/ela: "Agora, faça sozinho".
Escore
- Paciente realiza seis séries consecutivas corretas sozinho: 3
- Paciente realiza pelo menos três séries consecutivas corretas sozinho: 2
- Paciente fracassa sozinho, mas realiza três séries consecutivas corretas com o examinador: 1
- Paciente não consegue realizar três séries consecutivas corretas mesmo com o examinador: 0

4. Instruções conflitantes (sensibilidade a interferência)
"Bata duas vezes quando eu bater uma vez".
Para ter certeza de que o paciente entendeu a instrução, uma série de três tentativas é executada: 1-1-1.
"Bata uma vez quando eu bater duas vezes".
Para ter certeza de que o paciente entendeu a instrução, uma série de três tentativas é executada:
2-2-2.
O examinador executa a seguinte série: 1-1-2-1-2-2-2-1-1-2.
Escore
- Nenhum erro: 3
- Um ou dois erros: 2
- Mais de dois erros: 1
- Paciente bate como o examinador pelo menos quatro vezes consecutivas: 0

5. Vai-não vai (controle inibitório)
"Bata uma vez quando eu bater uma vez"
Para ter certeza de que o paciente entendeu a instrução, uma série de três tentativas é executada: 1-1-1.
"Não bata quando eu bater duas vezes".
Para ter certeza de que o paciente entendeu a instrução, uma série de três tentativas é executada: 2-2-2.
O examinador executa a seguinte série: 1-1-2-1-2-2-2-1-1-2.
Escore
- Nenhum erro: 3
- Um ou dois erros: 2
- Mais de dois erros: 1
- Paciente bate como o examinador pelo menos quatro vezes consecutivas: 0

6. Comportamento de preensão (autonomia ambiental)
"Não pegue minhas mãos"
O examinador está sentado em frente ao paciente. Coloca as mãos do paciente, com as palmas para cima, sobre os joelhos dele/dela. Sem dizer nada ou olhar para o paciente, o examinador coloca suas mãos perto das mãos do paciente e toca as palmas de ambas as mãos do paciente, para ver se ele/ela pega as espontaneamente. Se o paciente pegar as mãos, o examinador tentará novamente após pedir a ele/ela: "Agora, não pegue minhas mãos".
Escore
- Paciente não pega as mãos do examinador: 3
- Paciente hesita e pergunta o que ele/ela deve fazer: 2
- Paciente pega as mãos sem hesitação: 1
- Paciente pega as mãos do examinador mesmo depois de ter sido avisado para não fazer isso: 0

Hamilton Anxiety Scale

Name: Date:
DOB: Weight:
Health Care Provider: Phone:

Question					
Put a check mark in the box that BEST describes how you have felt in the last 6 months					
Symptom	**Not Present**	**Mild**	**Moderate**	**Severe**	**Very Severe**
Anxiety Worry, irritability, fearful anticipation					
Tension Restlessness, stress, inability to relax					
Fear Irrational phobia, excessive worry					
Insomnia Fatigue, inability to sleep, nightmares, night terrors					
Intellectual Symptoms Poor concentration, memory impairment					
Depressed Mood Decreased interest in activities, diurnal swing, early waking					
Muscular Symptoms Aches and pains, stiffness, twitching, teeth grinding					
Sensory Symptoms Tinnitus, blurred vision, hot/cold flushes, weakness					
Cardiovascular Symptoms Tachycardia, palpitations, chest pain, fainting, throbbing					
Respiratory Symptoms Chest pressure constriction, choking, sighing, dyspnea					
Gastrointestinal Symptoms Swallowing difficulties, abdominal pain, nausea, weight loss					
Genitourinary Symptoms Frequency, urgency of micturition, amenorrhea, impotence					
Autonomic Symptoms Dry mouth, flushing, pallor, sweating, giddiness, headache					
Behavior at Interview Fidgeting, restlessness, tremors, sighing, pallor, sweating					

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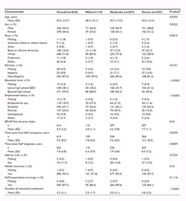

Adverse effects including extrapyramidal symptoms, cerebrovascular events, somnolence, urinary tract symptoms, and death were higher in the antipsychotic group as a whole, and worsening confusion was common with quetiapine and olanzapine.[16] In the United States, the Food and Drug Administration has issued a black box warning about the increased risk for death among elderly patients with dementia who receive treatment with antipsychotics for BPSD (3.5% vs. [PMC free article: PMC5881760] [PubMed: 29361069]14.Husebo BS, Ballard C, Sandvik R, Nilsen OB, Aarsland D. Tramadol and the risk of fracture in an elderly female population: a cost utility assessment with comparison to transdermal buprenorphine. Geriatrics organizations and experts advocate the use of non-pharmacological interventions for BPSD. Haloperidol for agitation in dementia. Clinicians should generally avoid using muscle relaxants, chronic NSAIDs, and tricyclic antidepressants. Medications should be given an adequate trial of at least four weeks at the maximum recommended dose before concluding they are ineffective. The primary role of the physical exam is to identify factors that may contribute to worsening BPSD, such as superimposed delirium or discomfort. [PMC free article: PMC4079031] [PubMed: 24484576]9.Tan EC, Jokanovic N, Koponen MP, Thomas D, Hilmer SN, Bell JS. 2018 Oct 05;10:CD003945. Access free multiple choice questions on this topic. 2015 May;172(5):460-5. [PMC free article: PMC4416978] [PubMed: 25585033]40.Gerlach LB, Kales HC. Although depression is associated with an increased risk of developing dementia, there is no consistent evidence that treating it reduces this risk, nor is there yet any good-quality evidence to support cognitive training exercises as a strategy for preventing dementia.[41]Effective management of BPSD requires a coordinated interprofessional health care team that partners with the patient's home caregiver.[40] [Level 5]Nurses and nursing assistants are on the front lines of identifying, quantifying, and monitoring BPSD in hospitals and long-term care facilities, where they are usually the first to notice precipitants such as changes in the environment, medications, and physical symptoms. Withdrawal versus continuation of long-term antipsychotic drug use for behavioural and psychological symptoms in older people with dementia. [PMC free article: PMC4451432] [PubMed: 25677354]35.Ruthirakuhan MT, Herrmann N, Abraham EH, Chan S, Lanctôt KL. A double-blind randomized placebo-controlled withdrawal trial comparing memantine and antipsychotics for the long-term treatment of function and neuropsychiatric symptoms in people with Alzheimer's disease (MAIN-AD). 2011 Feb 16;(2):CD008191. Am J Alzheimers Dis Other Demen. Effect of the bathing without a battle training intervention on bathing-associated physical and verbal outcomes in nursing home residents with dementia: a randomized crossover diffusion study. 2011 Jul 15;343:d4065. Having caregivers use a calendar or notebook to keep a daily prospective diary is the best way to get accurate information; ideally, this should occur before any intervention for at least three days, and then be repeated after the intervention.Management of BPSD involves choosing an appropriate setting, treating discomfort, implementing non-pharmacological interventions, and then only, if needed, conducting systematic trials of evidence-based pharmacological therapies. 2018 Aug 31;8:CD003944. 2018 Jan 18;58(suppl_1):S88-S102. For these cases, the clinician can add an acetylcholinesterase inhibitor if the patient is not already receiving one; if they are already taking an acetylcholinesterase inhibitor, pimavanserin or quetiapine can be options. 2017 Aug;8(8-9):121-136. J Clin Psychiatry. The BEHAVE-AD domains comprise delusions, hallucinations, activity disturbances, aggression, diurnal rhythm disturbances, tearfulness, depression, and anxiety; caregivers are asked to rate each symptom's severity over the past two weeks, provide a global rating of symptom severity, and identify the most troublesome symptom. However, a meta-analysis of 10 randomized controlled trials in patients with moderate to severe dementia found no benefit, except for music therapy in reducing overall BPSD and massage therapy in reducing depression.[10]Caregiver training: However, this meta-analysis excluded interventions focused on caregiver training, which is effective in both reducing a range of BPSD as well as improving caregiver well-being.[11] Caregiver training typically focuses on understanding behavioral disturbances as responses to discomfort, unmet needs, or attempts to communicate; creating soothing environments with optimal levels of stimulation; and responding to patients in ways that de-escalate problematic behaviors (e.g., distraction, giving patients clear instructions and simple choices, not rewarding the behaviors). For example, the exam may reveal an altered level of consciousness (somnolence or hyper-alertness), which is frequently a feature of delirium, or grimacing and guarding suggesting pain. Strategies for dementia prevention: latest evidence and implications. 1992 Aug;40(8):807-10. BPSD affects up to 97% of community-dwelling patients with dementia and has a significant impact on prognosis, institutionalization, and caregiver well-being. 2007 Oct 04;357(14):1382-92. If symptoms do not respond, discontinue the medication. Treatment-Refractory Patients Neurostimulation therapies may have a role in refractory patients. For overall BPSD, clinicians can use a standardized instrument such as the Neuropsychiatric Inventory (NPI) or the Behavioral Pathology in Alzheimer's Disease rating scale (BEHAVE-AD). Prazosin for the treatment of behavioral symptoms in patients with Alzheimer disease with agitation and aggression. Evidence-Based Nonpharmacological Practices to Address Behavioral and Psychological Symptoms of Dementia. Assessment and management of behavioral and psychological symptoms of dementia. Infect Dis Clin North Am. 2014 Mar;28(1):75-89. The spectrum of behavioral changes in Alzheimer's disease. Managing Behavioral and Psychological Symptoms of Dementia. 1996 Jan;46(1):130-5. [PubMed: 23159046]3.Kolanowski A, Boltz M, Galik E, Gitlin LN, Kales HC, Resnick B, Van Haitsma KS, Knehans A, Sutterlin JE, Sefcik JS, Liu W, Petrovsky DV, Massimo L, Gilmore-Bykovskyi A, MacAndrew M, Brewster G, Nalls V, Jao YL, Duffort N, Scerpella D. 2019;10:2042098619846993. [PMC free article: PMC6513376] [PubMed: 30168578]34.Lavretsky H, Reinlieb M, St Cyr N, Siddarth P, Ercoli LM, Senturk D. In addition to the well-recognized adverse effects of bladder antispasmodics and histamine antagonists on cognition and behavior, antibiotics (especially trimethoprim-sulfamethoxazole and fluoroquinolones in the outpatient setting, and penicillins and most cephalosporins [excluding ceftriaxone] in the inpatient setting), antidepressants, benzodiazepines, digoxin, levetiracetam, and muscle relaxants can contribute to both agitation and apathy. [PMC free article: PMC3902018] [PubMed: 24021498]37.Vacas SM, Stella F, Loureiro JC, Simões do Couto F, Oliveira-Maia AJ, Forlenza OV. [PubMed: 29107460]39.Peters ME, Schwartz S, Han D, Rabins PV, Steinberg M, Tschanz JT, Lyketsos CG. [PMC free article: PMC6560499] [PubMed: 31211112]18.Van Leeuwen E, Petrovic M, van Driel ML, De Sutter AI, Vander Stichele R, Declercq T, Christiaens T. Curr Clin Pharmacol. In the United States, pimavanserin is approved by the Food and Drug Association for the treatment of psychosis related to Parkinson's disease, although it carries the same black box warning as other antipsychotics.[17] The starting and target dose is the same (34 mg). Neuroimaging may be necessary, especially in patients with frontotemporal dementia, who frequently present with behavioral disturbances rather than memory impairment.Dementia is associated with significant decreases in life expectancy compared to age-matched controls, with a median survival from diagnosis ranging from 4.5 years for men with Lewy body or Parkinsonian dementia to 12 years for women with Alzheimer's disease. For in-home settings, a notebook that contains caregiver ratings of symptoms, medications, including date/time of any as-needed medications, and instructions given by each discipline can be immensely beneficial.With open collaboration and communication among all members of the interprofessional healthcare team, the management of BPSD will be more effective and result in better patient outcomes. 2015 Apr;16(4):316-22. 2012 Mar 14;(3):CD006504. [PubMed: 26338172]10.Na R, Yang JH, Yeom Y, Kim YJ, Byun S, Kim K, Kim KW. Efficacy of cholinesterase inhibitors in the treatment of neuropsychiatric symptoms and functional impairment in Alzheimer disease: a meta-analysis. Medication withdrawal, especially from antidepressants, benzodiazepines, or opioids, can also contribute to BPSD. Behavioral correlates of cerebrospinal fluid amino acid and biogenic amine neurotransmitter alterations in dementia. To avoid prematurely abandoning a potentially effective strategy, educating and supporting caregivers is a vital component of this process. 2014 Feb 19;311(7):682-91. Nurs Outlook. Global, regional, and national burden of Alzheimer's disease and other dementias, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. Alzheimers Dement. A common error with quetiapine is inadequate dosing; doses up to 200 mg/d are useful in patients with re Parkinson disease without any adverse motor effects. [PMC free article: PMC4648159] [PubMed: 25991652]30.Lonergan E, Luxenberg J, Colford J. Int J Neuropsychopharmacol. If an intervention (especially a medication) is truly ineffective after an adequate trial, it should be discontinued, and the lack of benefit documented.For agitated behaviors, once uncomfortable symptoms have been treated, environmental triggers removed, and non-pharmacological interventions implemented, pharmacotherapy should start with citalopram or sertraline; if this is not effective, the next step would be adding risperidone or aripiprazole, unless the patient has Lewy body dementia or Parkinson's disease. It can be challenging to distinguish Lewy body dementia from delirium since patients with Lewy body may have visual hallucinations and fluctuations in the level of consciousness, but these symptoms will have a more gradual onset than in patients with delirium. While the presence of cognitive impairment is necessary and sufficient for a diagnosis of dementia, associated neuropsychiatric symptoms -known collectively as behavioral and psychological symptoms of dementia, or BPSD - are prevalent and can significantly impact the prognosis and management of dementia. [PubMed: 27298146]2.Vermeiren Y, Le Bastard N, Van Hemelrijck A, Drinkenburg WH, Engelborghs S, De Deyn PP. For this reason, DSM 5 requires clinicians to specify whether BPSD is present and to specify the degree of severity; for example, a diagnosis of Alzheimer's dementia might be coded as "major neurocognitive disorder due to Alzheimer's disease, with behavioral disturbances, severe." BPSD includes emotional, perceptual, and behavioral disturbances that are similar to those seen in psychiatric disorders. A 2011 meta-analysis demonstrated that the SSRI antidepressants citalopram and sertraline were associated with improvement in these symptoms, with a rate of adverse effects similar to placebo, although trazodone was not effective.[19] A subsequent multicenter randomized controlled trial of citalopram 30 mg daily versus placebo showed a number needed to treat for moderate to marked overall benefit in BPSD of 7, but there was no difference in agitation scores and patients had an average increase in corrected QT interval of 18 ms.[20] Antidepressant dosing strategies used in the studies were the same as for depression, and researchers observed common SSRI adverse effects such as nausea and hyponatremia. 2018 Apr;26(4):419-434. In addition to delivering direct nursing care, home health nurses provide education and guidance to family caregivers. Physical, occupational, and recreational therapists can aid in identifying and removing sources of danger, assisting with family caregiver education, and providing non-pharmacological interventions such as busy quilts (or other forms of distracting activities) and weighted blankets. Social workers can support family caregivers and connect them with resources such as caregiver education, respite, and permanent placement. Clinical psychologists can create behavioral plans that integrate non-pharmacological interventions with measures to avoid inadvertently reinforcing undesirable behaviors.Pharmacists can assist in identifying medications or drug interactions that may contribute to BPSD, as well as checking for drug interactions and verifying dosing regimens.Physicians, nurse practitioners, and physician assistants perform medical evaluations, initiate and monitor pharmacotherapy, and oversee the interprofessional treatment plan.All team members are responsible for maintaining clear communication with other team members, informing everyone regarding any concerns or new developments, and addressing safety risks. Meta-analysis of nonpharmacological interventions for neuropsychiatric symptoms of dementia. Antidepressants for treating depression in dementia. While few studies have characterized BPSD symptoms according to dementia etiology, delusions appear to be most common in Alzheimer's disease, depression, and apathy in vascular dementia, and disinhibition and eating disturbances in frontotemporal dementia.[5]The goal of the history for patients with BPSD is to establish priorities regarding the nature and urgency of interventions, characterize the symptoms, identify potentially reversible exacerbating factors, including environmental factors, medications, discomfort, substance use, and pre-morbid psychiatric disorders; and create a baseline for measuring the effectiveness of treatment. [PMC free article: PMC2842091] [PubMed: 19700947]23.Howard RJ, Juszczak E, Ballard CG, Bentham P, Brown RG, Bullock R, Burns AS, Holmes C, Jacoby R, Johnson T, Knapp M, Lindesay J, O'Brien JT, Wilcock G, Katona C, Jones RW, DeCesare J, Rodger M., CALM-AD Trial Group. Pharmacologic Interventions for Agitation and Aggression Psychotropic medications are frequently used to treat BPSD, although the side effect burden is high, and benefits are typically modest. Long term care staff members often attribute BPSD to urinary tract infections; however, the prevalence of bacteriuria is up to 50% in institutional settings, and routine testing may, therefore, lead to over-diagnosis, unnecessary antimicrobial treatment, and development of antibiotic resistance. Like other antipsychotics, it prolongs the QT interval and carries a black box warning about the increased risk of death in geriatric patients with dementia. Pharmacological approaches will differ based on the nature and severity of the symptoms. If an antipsychotic is insufficiently beneficial, an alternative antipsychotic can be tried using a cross-titration, but olanzapine should generally be avoided due to its anticholinergic effects and lower benefit overall. Outline a systematic strategy for evaluating and managing behavioral and psychological symptoms of dementia.Explain the importance of collaboration and communication among the interprofessional team in improving outcomes for patients affected by behavioral and psychological symptoms of dementia. Compared to BPSD, the emotional and behavioral symptoms that occur with CNS neoplasms are more prominent than the cognitive deficits that can also occur in patients with brain tumors, and there are usually other neurological findings. [PubMed: 22952073]12.Gozalo P, Prakash S, Qato DM, Sloane PD, Mor V. If delirium is identified, the patient will need a thorough medical evaluation, which is usually best accomplished in an inpatient setting. Caregivers should understand that change is often so gradual that it may not be noticeable until comparing recent behavior diaries to those from 3 to 4 weeks prior. Dementia-related agitation, disinhibition, and psychosis are associated with volume reductions and decreased metabolism in the orbital and dorsolateral prefrontal cortex, anterior cingulate, insula, and temporal lobes – parts of the brain that mediate emotional regulation, self-awareness, and perception; and apathy is associated with small vessel white matter disease.[1] BPSD has also correlated with alterations in cholinergic, noradrenergic, dopaminergic, serotonergic, and glutamatergic neurotransmission.[2] This evidence is preliminary and primarily relates to Alzheimer's disease, but supports some of the pharmacotherapies currently used to treat BPSD. A review addressing non-biological determinants of BPSD identified pre-morbid neuroticism (a personality trait characterized by a tendency to respond to challenges with exaggerated negative emotions such as anxiety, depression, and anger), pre-morbid post-traumatic stress disorder, problematic caregiver communication styles, and environmental factors (e.g., sensory over-or under-stimulation, or surroundings that are too hot, cold, or loud) also contribute to BPSD.[3] From a theoretical perspective, three main categories of environmental contributions have been described: unmet needs (e.g., for food, fluid, companionship), behavioral/learning (e.g., when unwanted behavior is unwittingly reinforced, such as by providing attention when a patient calls out), and patient-environment mismatch (e.g., when a caregiver's expectations exceed a patient's capability).In 2016, the worldwide prevalence of dementia was approximately 43.8 million, representing a 117% increase from 1990 and 28.8 million disability-adjusted life years, and it was the world's fifth leading cause of mortality.[4] The majority of patients with dementia experience BPSD at some point: when community-dwelling individuals with dementia have undergone assessment in longitudinal studies, up to 97% are affected by at least one symptom, most commonly depression or apathy, although delusions, agitation, and aberrant motor behavior (e.g., fidgeting, repetitive behaviors, wandering) occur in about a third of patients. While randomized, controlled trials have not found any benefit from transcranial direct current stimulation, repetitive transcranial magnetic stimulation was beneficial in a majority of studies, with minimal adverse effects.[37] Electroconvulsive therapy is highly effective and safe for geriatric depression and has also shown effectiveness and tolerability for both depression and agitation/aggression in patients with dementia.[38] The availability of these therapies is often a limiting factor.The differential diagnosis for BPSD includes:DeliriumSchizophreniaBipolar disorderMajor depressive disorderPost-traumatic stress disorderCentral nervous system (CNS) neoplasmsDelirium characteristically demonstrates acute onset, fluctuating course, and the presence of an underlying medical condition, medication or psychoactive substance, or medication/substance withdrawal. The Alzheimer's Association offers both online educational modules and in-person training classes, which also provide caregivers with professional and peer support. Patients with delirium are often best managed in a hospital to facilitate medical evaluation because parenteral medications may be required. Referral to a geropsychiatry unit is appropriate for medically stable patients who are endangering themselves or others (aggression with injury or capacity to cause injury, refusing fluids or basic hygiene, suicidal behavior), especially if pharmacotherapy has been refused or is ineffective. Efficacy and tolerability of benzodiazepines for the treatment of behavioral and psychological symptoms of dementia: a systematic review of randomized controlled trials. Except for urgent situations involving safety, there should be an established, clear baseline regarding the frequency and severity of target behaviors. A clinical trial (ClinicalTrials.gov ID NCT03643991) is currently underway to evaluate the latter. Evidence for using

pimavanserin for the treatment of Parkinson's disease psychosis. [PubMed: 12517232]25.Ballard C, Thomas A, Gerry S, Yu LM, Aarsland D, Merritt C, Corbett A, Davison C, Sharma N, Khan Z, Creese B, Loughlin P, Bannister C, Burns A, Win SN, Walker Z., MAIN-AD investigators. Though whether the treatment has any impact on these variables is unknown, interventions that involve training and supporting family caregivers have been found to reduce or delay nursing home placement in the general population of patients with dementia.There are no studies specifically examining the prevention of BPSD, although some strategies have been shown to reduce the risk of cognitive decline and the development of dementia. Both a dietary intervention combining a Mediterranean diet with the Dietary Approach to Systolic Hypertension (DASH) and pharmacological treatment of hypertension results in a decreased risk for incident dementia and physical exercise improves cognitive function in patients with existing dementia. Use of Benzodiazepines in Alzheimer's Disease: A Systematic Review of Literature. Behavioral and psychological symptoms of dementia (BPSD) include a range of neuropsychiatric disturbances such as agitation, aggression, depression, and apathy. Unlike BPSD, symptoms related to delirium will resolve, albeit sometimes gradually, once the underlying cause is corrected.Patients who have pain, urinary retention, constipation, or other causes of discomfort yet cannot communicate their experience may become agitated, but once the cause is corrected, the behavioral disturbances improve. Presentations of psychiatric conditions, such as schizophrenia, bipolar disorder, major depressive disorder, and post-traumatic stress disorder, may be quite similar to BPSD. An excellent first step is initiating routine (not as-needed) acetaminophen, with a maximum recommended dose of 3 grams/day in the frail elderly. 2018 Mar 30;3:CD007726. Most hospitals and some nursing homes use one of these instruments, and family caregivers can also be trained to use them.Review psychiatric history and substance use: Caregivers should be questioned about the past medical history of psychiatric disorders, especially psychotic, mood, anxiety, and post-traumatic stress disorders, and whether the patient could be using alcohol, cannabis, non-prescribed medications, or illicit drugs. Patients receiving antipsychotic medications require monitoring for adverse motor effects, and periodic (every 3 to 6 months) attempts should be made to taper and discontinue the medication. Neuropsychiatric symptoms as predictors of progression to severe Alzheimer's dementia and death: the Cache County Dementia Progression Study. The primary focus of clinical trials has been on symptoms of agitation, aggression, and psychosis since these are typically the most problematic and distressing manifestations of BPSD. Empiric treatment of pain: Painful conditions are present in at least 49% of patients with dementia, but only 20 to 40% of patients with dementia receive analgesics, compared to 60 to 80% of similar patients without dementia; this is believed to relate to both under-reporting by patients and under-recognition by clinicians.[9] Since untreated pain has a strong relationship with BPSD, an 8-week multicenter cluster randomized controlled trial examined the effect of a stepwise protocol for empiric treatment of pain in patients with dementia-related agitation. Valproate preparations for agitation in dementia. In the case of psychotic or mood disorders, the presentation is generally episodic rather than continuous, which is typical for BPSD. Patients with primary CNS neoplasms have a high frequency of behavioral and psychological disturbance, most commonly apathy, anger, and disinhibition. Donepezil for the treatment of agitation in Alzheimer's disease. Transdermal buprenorphine may be the safest alternative in this regard and also is relatively unaffected by renal insufficiency, which is common in older adults.[15] Antipsychotics: Second-generation antipsychotics (primarily risperidone, olanzapine, quetiapine, and aripiprazole) are the mainstay of treatment for agitation and aggression, although, in a systematic review of 16 meta-analyses of randomized, controlled trials of these agents, the effect sizes (differences between treatment and placebo) were typically quite small for risperidone, olanzapine, and aripiprazole, ranging between 0.15 to 0.30 in most studies, and quetiapine generally did not differ from placebo. Are they risking their health or safety by refusing basic hygiene, food, or fluids? [PMC free article: PMC5584541] [PubMed: 24697702]13.Scales K, Zimmerman S, Miller SJ. [PubMed: 1634724]7.Mega MS, Cummings JL, Fiorello T, Gornbein J. [PMC free article: PMC4757608] [PubMed: 25861916]16.Tampi RR, Tampi DJ, Balachandran S, Srinivasan S. Prevalence of Analgesic Use and Pain in People with and without Dementia or Cognitive Impairment in Aged Care Facilities: A Systematic Review and Meta-Analysis. Trials of antipsychotic tapering should take place every 3 to 6 months (sooner if adverse effects emerge). There may be a temporal relationship with events such as a change in environment (e.g., moving from home to nursing facility), or symptoms might worsen in the evenings, following family visits, or when providing personal care. Review Medications Clinicians should ask caregivers about any changes in medications in the weeks preceding the onset or worsening of BPSD. [PMC free article: PMC6539264] [PubMed: 31132836]11.Brodaty H, Arasaratnam C. [PMC free article: PMC5546647] [PubMed: 28815009] [PubMed: 21328305]20.Porsteinsson AP, Drye LT, Pollock BG, Devanand DP, Frangakis C, Ismail Z, Marano C, Meinert CL, Mintzer JE, Munro CA, Pelton G, Rabins PV, Rosenberg PB, Schneider LS, Shade DM, Weintraub D, Yesavage J, Lyketsos CG., CitAD Research Group. Wandering and repetitive vocalizations rarely respond to pharmacotherapy and are best addressed with non-pharmacological measures. The relations among caregiver stress, "sundowning" symptoms, and cognitive decline in Alzheimer's disease. Doses can be increased in small increments every two weeks if there is an insufficient improvement, based on prospective ratings from caregivers. Am J Psychiatry. 2019 Jun 10;9(3):47-54. [PMC free article: PMC8407230] [PubMed: 29605970]19.Seitz DP, Adunuri N, Gill SS, Gruneir A, Herrmann N, Rochon P. Patients receiving antidepressants had higher rates of adverse events and study drop-out.[33] In elderly patients without dementia, there was a greater response rate to a combination of citalopram (average dose 34 mg daily) and methylphenidate (average dose 16 mg daily) than to either medication alone, without an increase in adverse effects (25677354), but whether the combination would be effective in patients with dementia is unknown, and benefits of citalopram doses below the currently recommended maximum of 20 mg daily cannot be determined from this study.[34] SSRIs are the antidepressant treatment of choice, with citalopram and sertraline favored due to fewer drug-drug interactions than paroxetine, fluoxetine, or fluvoxetine, which inhibit cytochrome p450 enzymes.Apathy: Methylphenidate may improve apathy, cognition, and functioning modestly, with minimal risk for adverse effects, but studies of cholinesterase inhibitors, memantine, and antidepressants have not demonstrated a benefit for apathy.[35] In the ADMET trial of methylphenidate, patients did not meet exclusion criteria if they had cardiovascular conditions but were excluded if they had agitation at baseline; there were no differences from placebo on any cardiac outcomes, but patients receiving methylphenidate did have greater weight loss, and two methylphenidate patients developed hallucinations or delusions, versus none on placebo (not statistically significant).[36] The response to methylphenidate usually occurs within several days, so a good dosing strategy is to begin the immediate-release formulation at 2.5 or 5 mg twice daily (morning and early afternoon) and titrate up by 2.5 or 5 mg every week. Ther Adv Drug Saf. A Systematic Review and Meta-Analysis of Nonpharmacological Interventions for Moderate to Severe Dementia. Severe agitation or aggressive symptoms usually require immediate initiation of antipsychotic therapy to bring symptoms under control, but this should not obviate the need to implement other interventions concurrently or to attempt discontinuation when the patient stabilizes. Duloxetine, gabapentin, or pregabalin can be helpful if there is a concern for neuropathic pain, although they are associated with an increase in falls. Ther Adv Chronic Dis. Pharmacological interventions for apathy in Alzheimer's disease. Antidepressants for agitation and psychosis in dementia. For depression, pharmacotherapy should begin with citalopram or sertraline, with consideration of adding methylphenidate if there is a limited response after an adequate trial of the antidepressant. History is the key to differentiating BPSD from delirium: in delirium, the onset of symptoms occurs over days to 1 to 2 weeks, while in BPSD, symptoms gradually worsen over several weeks to months. Psychiatr Clin North Am. 2018 Mar;41(1):127-139. 2012 Sep;169(9):946-53. [PubMed: 30246461]38.van den Berg JF, Kruithof HC, Kok RM, Verwijk E, Spaans HP. J Alzheimers Dis. Gerontologist. 2015;10(3):194-203. Patients with dementia are susceptible to the CNS effects of medications, and not all culprit medications are easily recognized. Other essential elements of the history include the onset (i.e., acute, sub-acute, or chronic/progressive), frequency, timing, and trajectory of the disturbances, and any relationship to environmental changes or medication changes. [PMC free article: PMC6494556] [PubMed: 29727467]36.Rosenberg PB, Lanctôt KL, Drye LT, Herrmann N, Scherer RW, Bachman DL, Mintzer JE, ADMET Investigators Safety and efficacy of methylphenidate for apathy in Alzheimer's disease: a randomized, placebo-controlled trial. Safety and effectiveness of cannabinoids for the treatment of neuropsychiatric symptoms in dementia: a systematic review. Pending transfer, patients who are dangerous to self or others require monitoring with one-on-one observation, and treatment with antipsychotic medications will usually be necessary, following a risk/benefit discussion with their surrogates or guardians. Treat discomfort: Before any BPSD-specific interventions, all patients should be assessed and treated for causes of discomfort (e.g., pain, constipation, urinary retention, is the environment too warm/cold/loud), as described above, and treated appropriately. Non-Pharmacological Interventions for BPSD The next step in management is implementing non-pharmacological interventions, which may be sufficient alone for mild BPSD, and should always accompany any pharmacotherapy. [PubMed: 17914039]24.Trinh NH, Hoblyn J, Mohanty S, Yaffe K. Topical therapies such as transdermal lidocaine, diclofenac gel, or methyl salicylate cream are safe. J Am Med Dir Assoc. This activity reviews the evaluation and management of BPSD and highlights the role of the interprofessional team in improving care for patients with this condition. Both are based on structured interviews with caregivers and have seen extensive use in research, with similar performance in detecting global changes. Effect of citalopram on agitation in Alzheimer disease: the CitAD randomized clinical trial. [PubMed: 26393847]22.Wang LY, Shofer JB, Rohde K, Hart KL, Hoff DJ, McFall YH, Raskind MA, Peskind ER. Citalopram should be started at 10 mg daily and sertraline at 25 mg daily. They predict more rapid cognitive decline and earlier mortality and are associated with increased hospital length of stay, hospital complications, earlier nursing home placement, and increased rates of psychiatric and cardiovascular disorders in family caregivers.[40] Studies have not explicitly reported on injuries to patients and caregivers as a result of BPSD, but agitation and aggression would presumably increase the risk. [PubMed: 25114079]33.Dudas R, Malouf R, McCleery J, Dening T. Although the quality of evidence is low, antipsychotic discontinuation often does not result in worsening of BPSD, as evidenced by one longitudinal study in which about 80% of patients on long-term antipsychotics were successfully taken off their medication without increased BPSD or use of as-needed medication.[18] Discontinuation may be less successful for patients who have had severe symptoms. Selective serotonin reuptake inhibitors (SSRIs): Due to the adverse effects associated with antipsychotics, other medications have undergone research for the treatment of agitation and aggression. Am J Geriatr Psychiatry. [PubMed: 25551131]28.Rolinski M, Fox C, Maidment I, McShane R. Neuroimaging Findings Related to Behavioral Disturbances in Alzheimer's Disease: A Systematic Review. It may be clinically useful to classify them into five domains: cognitive/perceptual (delusions, hallucinations), motor (e.g., pacing, wandering, repetitive movements, physical aggression), verbal (e.g., yelling, calling out, repetitive speech, verbal aggression), emotional (e.g., euphoria, depression, apathy, anxiety, irritability), and vegetative (disturbances in sleep and appetite). There is no single etiology for BPSD. Physical findings such as fever, hypoxia, abdominal tenderness, fluid overload, inflammation, or new localizing neurologic deficits may point to an acute medical condition that is causing delirium.Unless there is evidence from the history or physical exam to suggest alternative causes, evaluation with laboratory or imaging is not necessary for patients with dementia who present with gradually worsening BPSD. For this reason, antipsychotic medications should only be an option when non-pharmacological interventions and other pharmacological interventions, such as pain control and selective serotonin reuptake inhibitors (SSRIs), have been ineffective or in cases of behaviors that are dangerous to the patient or others. Starting and maximum doses of antipsychotics for BPSD are as follows: aripiprazole 2 mg daily and 15 mg daily, respectively; olanzapine 2.5 mg daily and 10 mg daily; quetiapine 12.5 mg twice daily and 100 mg twice daily; and risperidone 0.25 mg twice daily and 1 mg twice daily. Identify evidence-based treatment interventions for behavioral and psychological symptoms of dementia. Citalopram, methylphenidate, or their combination in geriatric depression: a randomized, double-blind, placebo-controlled trial. Psychiatry Investig. Efficacy of treating pain to reduce behavioural disturbances in residents of nursing homes with dementia: cluster randomised clinical trial. 2019 Sep;34(9):1336-1345. 2002;(2):CD002852. Another priority is identifying delirium, which by definition is caused by a medical condition, medication, or non-prescribed CNS-active substance intoxication or withdrawal because this will require prompt medical evaluation and treatment (see Differential Diagnosis section). The Cohen-Mansfield Agitation Inventory (CMAI) specifically evaluates agitated behaviors only, dividing them into four categories depending upon whether they are physical, verbal, aggressive, or non-aggressive.While the NPI, BEHAVE-AD, and CMAI are gold standards for evaluating BPSD, they are time-consuming, and a reasonable alternative in clinical practice is to ask caregivers to very specifically describe a problematic symptom, quantify its frequency, and assess the degree of distress it causes. After eight weeks, agitation was reduced by 17% in the intervention group (an effect comparable to that seen with risperidone, the antipsychotic most commonly used for BPSD), without any adverse effects on cognition or physical functioning, suggesting that treatment of pain did not achieve benefit for BPSD simply by sedating patients.[14] This study supports the empiric treatment of known or potential pain as a first step in addressing BPSD. Visual hallucinations may be prominent in delirium, whereas delusions are more common in patients with BPSD. [PMC free article: PMC4086818] [PubMed: 24549548]21.Cummings JL, Lyketsos CG, Peskind ER, Porsteinsson AP, Mintzer JE, Scharre DW, De La Gandara JE, Agronin M, Davis CS, Nguyen U, Shin P, Tariot PN, Siffert J. Due to their potential to worsen motor symptoms, clinicians should avoid using antipsychotics other than quetiapine, pimavanserin, and clozapine in Lewy body dementia and dementia associated with Parkinson's disease. Create a Baseline Since BPSD can fluctuate and their assessment is subjective, establishing a clear baseline for assessing the effects of treatment is critically important. [PMC free article: PMC6579119] [PubMed: 28826872]4.GBD 2016 Dementia Collaborators. J Am Geriatr Soc. Dementia refers to a collection of symptoms stemming from a broad array of etiologies precipitating in functionally impairing cognitive decline. 2.3%, mainly due to cerebrovascular disease and infections). 2017 Sep - Oct;65(5):515-529. 2015 Jun;172(6):561-9. Objectives: Review environmental, psychosocial, and medical factors that may contribute to behavioral and psychological symptoms of dementia. [PMC free article: PMC6516950] [PubMed: 30293233]27.Tampi RR, Tampi DJ. They can be effective if a localized source of pain is suspected. Finally, prazosin or dextromethorphan-quinidine are potential therapies. Cochrane Database Syst Rev. Often the delusions consist of paranoid themes, as in Capgras syndrome and Othello syndrome. Effect of Dextromethorphan-Quinidine on Agitation in Patients With Alzheimer Disease Dementia: A Randomized Clinical Trial. General Approach to Pharmacotherapy for BPSD Given the limited overall benefits of pharmacotherapy, a systematic approach to implementing and evaluating BPSD is critical. 2014 May;62(5):797-804. Patients with delirium frequently have changes in the level of consciousness, such as periods of somnolence or extended periods of wakefulness, which are typically less prominent in BPSD. In general, non-pharmacological approaches are well-tolerated, but rare cases of worsening agitation have occurred with music therapy. [PMC free article: PMC4994396] [PubMed: 27583123]17.Tampi RR, Tampi DJ, Young JJ, Balachandran S, Hoq RA, Manikkara G. Lancet Neurol. 2018 May 04;5:CD012197. 2017;14(1):61-75. N Engl J Med. Characterize Symptoms Caregivers should be prompted to describe what they are seeing, rather than using generic terms such as “agitation” or “depression,” which can have different meanings to different observers. Patients were started on routine acetaminophen (3 g daily) if they were not receiving analgesics. Unless patients are endangering themselves or others, interventions should begin only after establishing a baseline by identifying and quantifying target symptoms, as described above.Choose an appropriate setting: The first step in management is to decide on the proper setting for treatment and address safety issues. Cholinesterase inhibitors for dementia with Lewy bodies, Parkinson's disease dementia and cognitive impairment in Parkinson's disease. 2015 Mar 02;350:h369. [PMC free article: PMC6535742] [PubMed: 31205674]32.Tan MS, Yu JT, Tan CC, Wang HF, Meng XF, Wang C, Jiang T, Zhu XC, Tan L. Hallucinations are not as prevalent as delusions with estimates as low as 7% at baseline.[7] Furthermore, additional symptoms leading to subsequent hospital admissions include agitation, aggression, wandering, apathy, disinhibition, sleep disturbances, and depression. Physical Examination The physical examination may document the problematic symptoms, although these are often intermittent. BMJ. Acute or subacute onset of symptoms should prompt basic studies (typically, complete blood count, electrolytes, evaluation of liver and kidney function, urinalysis, thyroid function tests, toxicology screen, and head CT) to evaluate for causes of delirium. 2009 Sep;17(9):744-51. Some of these include aromatherapy, bright light therapy to reduce circadian disturbances, massage, multisensory stimulation, and reminiscence therapy, in which patients are engaged in reviewing their past via conversation, photographs, or music.[13] Some interventions with anecdotal effectiveness for agitation include giving patients simple tasks to perform, such as folding laundry or using busy quilts (lap quilts with attached interesting objects such as zippers, Velcro, beads, ties, etc.) and weighted blankets (similar to those used to calm children with pervasive developmental disorders). 2015 May 19;18(10):pyv055. 2016 Sep;7(5):229-45. For patients whose BPSD occurs primarily during personal care, a randomized, multi-site crossover study showed that training caregivers to deliver a protocol called Bathing without a Battle (available online) reduced agitation, bathing time, and antipsychotic use.[12]Other non-pharmacological approaches: While non-pharmacological interventions other than caregiver training and music therapy have not been consistently effective for overall BPSD in randomized, controlled trials, they may benefit individual patients, and unlike medications, rarely have adverse effects. The primary outcome measure was a change in scores on the Cohen-Mansfield Agitation Inventory; changes in cognitive and physical functioning were also assessed. JAMA. For example, a symptom might be described as "pushing me away when I try to give her a shower," and then quantified by the percentage of showering time that this occurs (e.g., 75% of the time) and the level of distress it causes for the caregiver (e.g., 7 on a scale of 0 to 10). Neurology. If this was insufficient, they were stepped up to low-dose morphine (up to 20 mg daily), buprenorphine transdermal patch (up to 10 mcg hourly), or pregabalin (up to 300 mg daily). Patients with BPSD can also have superimposed delirium as a cause for an abrupt worsening of their usual symptoms. It's wise to heed the geropsychiatry maxim "start low, go slow, but go as high as you need to go" when treating mild to moderate BPSD with SSRIs because too-rapid titration can worsen agitation. BPSD correlates with more rapid progression of dementia and earlier mortality; whether the treatment has any impact on these variables is unknown.[39]BPSD substantially contributes to the overall burden of dementia on patients, caregivers, and society. Still, patients will have a history of these disorders before the onset of their dementia. [PubMed: 12076456]31.Hillen JB, Soulsby N, Alderman C, Caughey GE. Int J Geriatr Psychiatry. 2015 Sep 22-29;314(12):1242-54. Noninvasive brain stimulation for behavioural and psychological symptoms of dementia: A systematic review and meta-analysis. [PMC free article: PMC6291454] [PubMed: 30497964]5.Kales HC, Gitlin LN, Lyketsos CG. Target symptoms and their baseline frequency/severity should undergo an assessment before starting the medication, and patients should be followed up two to three weeks later for response and tolerability. Antipsychotic use in dementia: a systematic review of benefits and risks from meta-analyses. According to the revised McGeer criteria, diagnostic evaluation and empiric therapy should be limited to patients who present with fever, dysuria, suprapubic pain, or new/increased urinary frequency, urgency, or incontinence, although other authors have suggested that culture and treatment could be initiated on the basis of an acute mental status change together with both change in the character of the urine and positive dipstick for either leukocyte esterase or nitrite.[8] Establish Priorities The first priority is characterizing the severity and nature of the symptoms – patients who are endangering themselves or others with aggressive behaviors or refusal of basic care will warrant more intensive management such as hospitalization. Because pain is present in 46 to 56% of patients with dementia and the presence of pain is associated with increased BPSD, the past medical history should have a review for painful conditions (e.g., neuropathy, osteoarthritis, peripheral vascular disease), and caregivers should be asked about both the patient’s self-report about pain and nonverbal signs of pain, because patients with dementia may demonstrate nonverbal signs of pain even though they do not report it.[9] The Pain Assessment in Advanced Dementia (PAINAD) or Face, Legs, Activity, Cry, Consolability (FLACC) scales are both reliable and valid tools for objectively evaluating and tracking pain. Diagnosis and management of urinary tract infection in older adults. 2003 Jan 08;289(2):210-6. 2016 Mar;17(2):217-27. 2019 May;16(5):325-335. Determinants of behavioral and psychological symptoms of dementia: A scoping review of the evidence. 2015;43(2):589-603. Efficacy and adverse effects of ginkgo biloba for cognitive impairment and dementia: a systematic review and meta-analysis. Therefore, the history should begin with an assessment of safety: has the patient been aggressive toward others, and if so, has this caused injury? Eur J Health Econ. If there is no benefit but also no adverse effects, citalopram dosing should increase to 20 mg and sertraline to 50 mg. [PMC free article: PMC3137923] [PubMed: 21765198]15.Hirst A, Knight C, Hirst M, Dunlop W, Akehurst R. The NPI evaluates delusions, hallucinations, agitation/aggression, depression/dysphoria, anxiety, elation/euphoria, apathy/indifference, disinhibition, irritability/emotional lability, aberrant motor behavior, sleep disturbances, and disorders of appetite/eating; for each domain, caregivers are asked to rate frequency, severity, and the degree of distress it causes, over a time period specified by the interviewer. Electroconvulsive Therapy for Agitation and Aggression in Dementia: A Systematic Review. Patients with suspected delirium should have a thorough medical evaluation, beginning with history and physical and followed by targeted laboratory testing and imaging based on these findings; typically, comprehensive metabolic panel, CBC, urinalysis, cardiac enzymes, chest X-ray, and toxicology screens are performed routinely, with neuroimaging, lumbar puncture, blood gases, and EEG reserved for select cases. Instead, a biopsychosocial model has been proposed that attributes neuropsychiatric symptoms to interactions between an individual’s biology, prior experiences, and current environment. Sertraline may be further increased to a maximum dose of 200 mg daily. The goal of the physical examination is to confirm historical data and identify alternative or contributing psychiatric or general medical conditions. Behavioral disturbances often occur in the evening, a phenomenon is known as 'sundowning.' Some studies suggest that this phenomenon affects up to two-thirds of patients with dementia.[6] One of the most common psychiatric sequelae observed in this demographic is delusions. [PubMed: 8559361]8.Rowe TA, Juthani-Mehta M. [PMC free article: PMC8985413] [PubMed: 22419314]29.Defrancesco M, Marksteiner J, Fleischhacker WW, Blasko I. 2014 Nov;29(7):565-74. 2013 Aug;74(8):810-6. [PMC free article: PMC4707529] [PubMed: 25731881]6.Gallagher-Thompson D, Brooks JO, Bliwise D, Leader J, Yesavage JA. 2019 Jan;18(1):88-106. World J Psychiatry. [Level 5]Review Questions1.Alves GS, Carvalho AF, de Amorim de Carvalho L, Sudo FK, Siqueira-Neto JI, Oertel-Knochel V, Jurcoane A, Knochel C, Boecker H, Laks J, Pantel J. Despite the lack of high-quality evidence for effectiveness, many clinicians will trial quetiapine in patients with Lewy body dementia or Parkinson's disease. All patients with new BPSD should have a thorough neurological evaluation. 2013 Sep;9(5):488-98. The maximum recommended dose of citalopram is 20 mg daily due to QTc prolongation at higher doses. Other pharmacotherapies: The combination of dextromethorphan and quinidine, which has approval in the U.S. and Europe for pseudobulbar affect, was studied in a single randomized trial, with modest benefit for agitation but significant adverse effects, especially falls.[21] Prazosin (average dose of about 6 mg daily) was beneficial for BPSD without adverse effects on blood pressure in a single study with 22 participants.[22] Medications that have no clinically meaningful efficacy for agitation or aggression include cholinesterase inhibitors, memantine, valproate, and benzodiazepines.[23][24][25][26][27] An exception to the negative findings regarding cholinesterase inhibitors in the dementia population as a whole is the possible benefit for patients with Lewy body dementia and dementia associated with Parkinson's disease, in which a small effect size of 0.2 was found, albeit at the cost of an increase in motor symptoms.[28] Both valproate and benzodiazepines have correlated with accelerating cognitive decline in patients with dementia.[26][29] Haloperidol is ineffective for BPSD in general but can be useful for aggression.[30] Cannabinoids (dronabinol, purified delta-9-tetrahydrocannabinol, and nabilone) have been evaluated in a systematic review, in which the best randomized controlled trial evidence did not support benefit for a reduction in either symptoms or caregiver burden, although differences in adverse events were minimal.[31] Among other complementary and alternative therapies; the only ginkgo at a dose of 240 mg/d has shown consistent benefit for BPSD in randomized, controlled trials, although these studies were of low to moderate quality.[32] Pharmacologic Interventions for Depression and Apathy While depression and apathy are the most common BPSD, fewer studies have examined outcomes of pharmacotherapy. Depression: A meta-analysis of 10 studies of various antidepressants for treatment of depression in dementia showed no difference from placebo on the primary outcome measure (scores on depression rating scales) for antidepressants as a group or any individual agent; although there was a benefit for SSRIs (but not other antidepressants) regarding numbers of responders and remitters, the quality of this evidence was lower. Although opioids can also contribute to falls and fractures, tramadol has a stronger association than most other opioids. [PubMed: 29412841]41.Rakesh G, Szabo ST, Alexopoulos GS, Zannas AS. [PubMed: 25523285]26.Baillon SF, Narayana U, Luxenberg JS, Clifton AV. Dementia is the colloquial term that denotes the nosological distinction of major neurocognitive disorder in the Diagnostic and Statistical Manual 5 edition (DSM 5). Akathisia from antipsychotics, including second-generation antipsychotics, should be considered, especially in patients whose symptoms worsen despite increasing doses of these medications. Assess Comfort The review of systems should address uncomfortable physical symptoms, including pain, constipation, and urinary retention. Have they caused damage to property? At each step, re-evaluation and attention to environmental factors and non-pharmacological interventions are necessary. Symptom severity increases with time and correlates with institutional placement. Curr Alzheimer Res.