PSYCHOPHARMACOLOGIC MANAGEMENT OF NURSING HOME PATIENTS

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This is an overview of the protocols we use for the psychopharmacologic management of psychiatric problems, including dementia, at our institution. This is by no means an exhaustive review of the subject and the reader should be aware that there are many articles as well as textbooks addressing this large issue. No matter what recommendations may be made below, the overall principle treatment strategy with respect to psychopharmacologic agents is to "start low and go slow" in terms of dosages of medications and increasing them. The elderly patient often responds to between 25% - 50% of the "normal" adult dose, although there are a few older people who do need "normal" adult doses. Remaining ever vigilant to and mindful of the multitude of side-effects of psychopharmacologic agents as well as their interactions with other, non-psychiatric medications is a major principle in the treatment of elderly patients. Attribution of cognitive worsening or the onset of new neurological problems should almost never be made to an underlying dementing process until the patient is given a trial off the psychopharmacologic agent(s) being taken.

First questions first!

"Are you in pain?"

If the answer is "Yes," this issue should be addressed before any other issue is dealt with psychopharmacologically.
It is our current standard of care to use fentanyl patches for patients with serious chronic pain syndromes.

Dementia

Evaluation—what is the cause of the dementia?

Important consideration: No matter what your favored diagnosis may be, many patients suffer from double or even triple dementia. That is, on postmortem examination, there is evidence that the patient has brain changes characteristic of Alzheimer's disease plus vascular disease and possibly one or two other causes for dementia.

Because Dementia of the Alzheimer's type (DAT) is so common, we feel that most of our dementing patients, even those with advanced disease, deserve a course of donepezil treatment.

1) **Patients with mild dementia have the best response but**
2) **Patients with advanced disease (even MMSE scores under 10) can benefit in that their caregiving burden may become less because they understand more and are less threatened by someone coming to change him/her even if there is little or no improvement in MMSE scores.**
3) **Donepezil also is effective in decreasing hallucinations and improving apathetic states in patients with DAT and may have some mild effect on behavioral disturbances (this topic is under intense investigation at this time).**
4) **We start patients on 5 mgs daily (morning) for the first month and then increase the dose to 10 mgs. This titration method reduces the incidence of side-effects—studies show that the incidence of side-effects with this method is no greater than in patients taking placebo.**

5) **Rarely, we have had a patient who develops diarrhea, usually on 10 mgs. First we cut back the dose to 5 mgs and, on just one occasion, stopped donepezil because of this problem as the patient's wife wanted to take him home but was physically unable to change him as often as was necessary when he had donepezil-induced diarrhea.**

Dementia with Lewy Bodies (DLB)

1) **This form of dementia is felt to be more common than vascular dementia but less common than dementia of the Alzheimer's type.**
2) **These patients are best recognized because of the following constellation of signs and symptoms:**

    Progressive loss of memory

    Highly variable level of alertness ("some days he seems to be almost normal and talks readily; other days he is 'totally out of it' and can hardly be aroused")

    Psychosis with prominent, well-formed visual hallucinations is a hallmark sign of this illness (some patients also have delusions as well).

    Parkinsonism (but without tremor) is a hallmark sign of this illness with rigidity, gait disturbance and myoclonic jerks commonly seen—these usually start AFTER the onset of memory loss and not before, as is usually the case in patients with Parkinson's disease.

    Severe adverse reactions to typical neuroleptics occur very often—stiffness, rigidity, inability to walk, etc.

3) **One of the major reasons why it is so important to make this diagnosis is to protect the patient from the use of typical neuroleptics to which they have such vigorous and uncomfortable side effects.**
4) **We currently use quetiapine for the treatment of psychosis in these patients and use it in association with donepezil, which has been noted to often be particularly effective in DLB patients. For emergency treatment of aggression, severe agitation, or anxiety associated with hallucinations, we use very low doses of the oral concentrate of risperidone (0.25 – 0.5 mg and almost never exceeding 1.5 mg total daily dose). Now and then, a DLB patient may also have a series of severe, extrapyramidal reactions to risperidone but, if the total daily dose is less than 1.5 mg, this problem is less likely to occur.**

Other dementias such as vascular dementia, the dementia associated with Parkinson's disease, head injury, etc.

We usually give this type of patient a trial of donepezil because double or triple dementia is so common and the patient may have associated dementia of the Alzheimer's type.

Delirium and dementia

1) **While identifying the cause for delirium, we treat patients' distress and associated behavior problems with low dose neuroleptics (e.g. risperidone oral concentrate, occasionally haloperidol oral concentrate) and low dose lorazepam.**
2) **Once delirium has cleared, the above drugs are tapered and discontinued.**
3) **Every effort is made to explain to the patient what occurred and, especially with patients who have higher MMSE scores, we try to give that patient lots of reassurance that "You are not crazy! What happened to you was a biochemical response of your body to infection (or other cause of the delirium)."**
4) **Every effort should be made to reduce or eliminate any drugs with anticholinergic properties as anticholinergic drug-induced delirium is common. A patient taking any number of medications with anticholinergic side-effects can become delirious but it also must be kept in mind that patients taking a combination of digoxin, furosemide and theophylline can also develop anticholinergic-induced delirium (Tune, *American Journal of Psychiatry,* 1992).**

N.B. Anticholinergic drugs may induce reversible cognitive impairment as well as delirium and should be avoided if at all possible. Drugs used to treat bladder spasms, the classic antihistamines and some anti-parkinson drugs are common 'offenders' as are the traditional antidepressants and typical neuroleptics.

Seizure disorders and dementia

1) **We have a significant number of patients who have dementia and seizure disorders. Most of these patients come to us taking phenytoin. Many have taken this drug for years and years. Often, the patient's last seizure was many years ago and justification for continued use of phenytoin is scant. We are impressed with phenytoin's adverse effects on cognition as well as on balance (and, therefore, on gait).**
2) **We do everything we can to get patients off phenytoin treatment and have seen some notable improvements in patients' cognition as well as a return to a less ataxic gait and fewer phenytoin-induced falls.**
3) **If a patient truly needs seizure prophylaxis, our drug of choice is carbamazepine and we have had very few problems switching a person slowly from phenytoin to carbamazepine therapy.**

Dementia with 'sundowning'

This serious problem often leads to prolonged or permanent institutionalization. We have tried a variety of psychopharmacologic agents to help alleviate the patient's distress that occurs late in the day. At times we have had good success with trazodone given at (25 mg or 50 mg or 100 mg) 3:00 PM and 7:00 PM. Similarly, we have also had some success using the oral concentrate of risperidone at the same times of the afternoon and evening. Progressively, we have been trying quetiapine but our numbers using this drug are still too small to have a good impression regarding its effectiveness. In the past we used haloperidol with good success but risperidone has largely replaced the use of haloperidol.

Dementia and behavior disorders

1) **We treat behavioral emergencies with low dose risperidone oral concentrate.**
2) **For the long-term, maintenance treatment of behavioral problems we use gabapentin (an article on this will appear in the Summer issue of the American Journal of Geriatric Psychiatry and will, eventually, appear on this website: http://mirecc.stanford.edu/www/).**
3) **We sometimes use quetiapine and/or lamotrigine.**
4) **For the least seriously disturbed patients, we have found buspirone and trazodone to be helpful at times.**
5) **Occasionally, we have used carbamazepine with good effect in patients with aggressive behavior problems**
6) **For the most seriously disturbed and aggressive patients, we have used and are using high dose propranolol treatment as per the protocol of Yudofsky, et.al.—this protocol must be followed exactly in order to assure patient safety.**

7) **We avoid using valproic acid for the following reasons: we have identified, so far, nine patients with the syndrome described by Armon, et.al. (see below) and each patient has made a wonderful recovery when VPA was discontinued.**

8) **Please see the attached algorithm for the treatment of behavior and aggressive problems in patients with dementia.**

Issue of VPA for treatment of behavioral problems (or mania)

1) **We avoid valproic acid because of the number of serious problems we have seen occur in patients taking this drug as per this article: Armon, et.al. Reversible parkinsonism and cognitive impairment with chronic valproate use. *Neurology* 47(3):626-635, 1996**
2) **We have identified nine patients with this syndrome all of whom have recovered when VPA was stopped.**

Dementia and adjustment reactions, 'transfer trauma,' catastrophic reactions

1) **We frequently use low dose, prn risperidone oral concentrate (0.25-0.5 mg q4h prn, total daily dose not to exceed 1.5 mg)**
2) **We sometimes (not often) use low dose lorazepam (0.25 mg q4h prn, total daily dose not to exceed 2.0 mg) but we have seen many patients develop delirium with benzodiazepines, some become intoxicated/disinhibited and others fall.**
3) **Once the patient's adjustment reaction, 'transfer trauma,' or 'catastrophic reaction' has abated, we stop any regularly prescribed medications—as above—because they are not needed.**

Dementia and apathy or low motivation or "he's stopped eating"

1) **We often use the Marin Apathy Evaluation scale as part of our assessment.**
2) **Frequently, patients are given a trial of megestrol, a steroid preparation well-known to stimulate the appetite in patients with advanced cancer or AIDS.**
3) **Most of our patients with the apathetic syndrome are considered for a trial of dextroamphetamine—DAMP-- (preferred over methylphenidate because of the somewhat slower onset of action, longer half-life and slower offset of action of DAMP). Patients are started on 2.5 or 5.0 mg to make sure they can tolerate the drug and then, quickly, the dose is raised to 7.5 mg or 10.0 mg. Studies have shown that 85% of patients (even with advanced cardiovascular disease) can**

tolerate low dose DAMP therapy and usually improve quickly. Calorie counts rise when this drug is used in the older patient and tolerance does not occur.

4) **Occasionally, in lieu of DAMP, we'll try a patient on bupropion and sometimes this drug will work well for this condition.**

Demoralization—with or without dementia

Patients with chronic physical or mental illness often become demoralized. They usually deny feeling depressed (but they may feel sad) and don't exhibit the full syndrome of major depression. Some actually have low GDS scores. However, they feel very discouraged and may talk about "I wish God would take me. I'm so sick of suffering. I'd rather be dead." These patients are talking about end of life issues and not suicide. Almost all will deny any active suicidal ideation although passive suicidal ideation is more common.

The treatment for this syndrome is similar to the treatment for the apathetic syndrome and, some feel that DAMP therapy (as above) is the treatment of choice. If the diagnosis of demoralization is correct, the patient often shows a rapid response to the psychostimulant-— usually this occurs within a week or less once the dose of DAMP is at 7.5 mg or above.

If the diagnosis is wrong and the patient truly suffers from major depression, this is quickly apparent because of a lack of response to DAMP treatment. At that point, the patient can be started on a more conventional antidepressant.

Major depression--with or without dementia

For patients with this idiopathic syndrome, we most often start treatment with bupropion or sertraline—and start at very low doses (37.5 mg of bupropion, 25-50 mg of sertraline). Sometimes we use both drugs in combination as there is some support in the literature for the concept of 'augmentation,' i.e. bupropion added to sertraline in a patient who has had only a partial response to sertraline may bring about a full remission.

We are ever mindful of the possible problem of the "smiling depressive," i.e. the person who has a smile on his/her face but, when asked the questions on the GDS or other screen for depression, will have many aspects of the depressive syndrome. This problem is more common in the older patient and serious suicide attempts can occur.

For the most seriously depressed patient, we may refer the patient for ECT. Our experience shows that this treatment is safe for elderly patients, is often safer than subjecting the patient to the wide range of side effects associated with drug treatment and is very effective. ECT is usually reserved for the treatment of patients who have stopped eating, are chronically and actively suicidal or who exhibit prominent psychotic symptoms.

On occasion, we have had a patient whose first episode of mania was induced after starting antidepressant therapy and this complication must be kept in mind. The first episode of mania can occur in an elderly patient and can occur in a patient who is also suffering from a dementia.

Bipolar illness—with or without dementia

Remaining mindful of the fact that the elderly patient with bipolar illness is more likely to present with irritability and anger than euphoria AND is more prone to develop the rapid cycling version of bipolar illness, we are frequently using the following two drugs for the treatment and prophylaxis of this condition:

1) **Olanzapine has been very useful for the treatment of acute mania as well as prophylaxis against future manic episodes. Its use is limited, however, because of profound weight gain in many patients as well as its poorly understood action in patients with diabetes mellitus—with or with out weight gain. We've had a several patients whose diabetes worsened greatly when this drug was added AND there are reports that diabetic conditions can appear for the first time after olanzapine is started;**
2) **Lamotrigine is also very useful for the elderly patients with bipolar patient although it, too, has the problem of rash development, which may limit its use (about 2% of patients develop a drug rash according to company sponsored studies). The rash is described this way: "if it looks like sunburn and the patient has not been in the sun, it is most likely the rash associated with lamotrigine therapy and then lamotrigine should be stopped." We start patients on 50mg and slowly raise their dose to either 150mg or 200 mg daily (usually in divided doses).**
3) **We do have some patients taking lithium and others taking carbamazepine for this disorder but we've stopped almost everyone who was on VPA because of the adverse effects noted above.**

Catatonia

The catatonic syndrome (immobility, mutism, withdrawal, staring, rigidity, posturing, negativism, waxy flexibility, echo phenomena, stereotypy, etc.) is not rare in elderly patients. It is most commonly associated with mood disorders and non-psychiatric medical illnesses and only rarely with schizophrenia. Rosebush, et.al., strongly advocates that benzodiazepines (lorazepam) be used for the treatment of this condition and we have also referred several patients with this syndrome for ECT.

Psychosis (schizophrenia or other types)—with or without dementia

We have a number of patients on our service who carry the life-long diagnosis of schizophrenia but we have discovered that a significant number of them suffer from chronic alcoholism (and their only psychotic episodes were during a course of heavy alcohol use, abrupt withdrawal or a prolonged withdrawal state). We have found another sizeable group of these patients who, in fact, have suffered from undiagnosed bipolar illness. And, we have found others whose primary diagnosis has been, and always was, an anxiety disorder such as PTSD or OCD (with the repetitive unwanted obsessive thoughts of OCD having been misidentified as delusions or even hallucinations). Once re-diagnosed, more appropriate treatments should occur.

With the above caveat, we do have a small number of patients who have suffered from a bona fide schizophrenic illness for many years.

For patients with a late-onset psychosis, we are not strong 'believers' in late-onset schizophrenia but feel that most of these psychoses are related to illnesses known to cause disease or damage to the brain or secondary to medications administered (e.g. dementias, Parkinson's disease, steroid treatment for COPD, traumatic brain injuries, etc.).

Regardless of the etiology for a patients psychosis and after we have done a thorough diagnostic work-up to make sure we are dealing with a psychotic illness that cannot be treated in another way (e.g., modifying the dose of levodopa/carbidopa, altering the dose of steroids, treating a mood disorder, etc.), we make every effort to give our patients an adequate clinical trial of one of the new, atypical anti-psychotic medications. Our preferred drug at this time is quetiapine and the doses we use range from 25 mg daily to 600 mg daily.

> **N.B. As knowledge about the use of this drug increases, we have become less concerned with the possibility of cataracts forming from quetiapine therapy. Beagle dogs on which this problem was first noted are prone to develop cataracts spontaneously, hundreds of thousands of patients have taken quetiapine with a low incidence of cataract development, schizophrenic patients (for whatever reason) have a higher incidence of cataract formation, and all psychotropic drugs are noted to have a wide range of ocular difficulties in some patients—including cataract formation. Finally, it would be nearly impossible, logistically, to obtain slit-lamp examinations on most of our patients.**

Quetiapine is our antipsychotic of choice for the elderly veteran and we have had some notable successes in patients we have slowly converted from typical neuroleptic therapy to quetiapine therapy. Not only have positive symptoms of psychosis been better treated, but also we've seen some notable improvement in negative symptoms AND we have also seen some very rewarding improvement in neuroleptic-induced, parkinsonian movement disorders after several months of quetiapine treatment. For the psychosis associated with Parkinson's disease, quetiapine is especially effective.

For the emergency management of patients with psychosis, we prefer the oral (colorless, odorless, tasteless) concentrate of risperidone.

We have a very small number of patients who are very reluctant to take any anti-psychotic medications and there is still a role for haloperidol decanoate for the management of such veterans.

For the elderly schizophrenic who is demented or dementing, we usually give this veteran a trial of donepezil treatment but we have not been impressed with the efficacy of this drug for this type of dementia—unless the elderly schizophrenic patient has truly developed associated dementia of the Alzheimer's type.

> **We believe we've seen some improvement in cognition with quetiapine treatment in a very few elderly schizophrenics but we have not seen the same kind of improvement with other atypicals such as risperidone or olanzapine.**

We use liquid medication preparations whenever possible. If this is not possible, as with quetiapine, nurses are instructed to crush medications and give them in applesauce, pudding or other similar food. This has reduced problems with non-compliance considerably and has helped a significant number of our patients take medications that may be somewhat 'pill-phobic' because of severe swallowing problems.

We have had a number of patients develop the Pisa Syndrome or "pleurothotonus." This is a dystonic syndrome first described by Ekbom (Germany) in 1972 as a side effect of neuroleptic treatment in 3 *elderly* women taking haloperidol. The criteria for the Pisa syndrome are:

1) **Tonic flexion of the trunk to one side or also seen as a leaning backward--patients are unable to stand straight and there is often an accompanying slight rotation of the trunk.**
2) **The patient is usually remarkably indifferent to their grossly abnormal posture.**
3) **Patients are currently neuroleptic (or antidepressant) treatment.**

There are multiple case reports in the medical literature but there is only one systematic study by Yassa, et.al. *Biol Psychiat* 1990;29:942-45. In this study the authors identified the Pisa syndrome in 11 out of 133 first time admissions to a psychogeriatric service in Quebec (over a five-year period). Thus, the prevalence rate was 8.3% and the syndrome was noted to have its onset anywhere from 2 to 120 days after neuroleptics were started. All patients were given anticholinergic medication but this treatment was not effective and caused confusional states to occur. The only effective remedy was reducing or discontinuing the neuroleptic.

In addition to seeing the Pisa syndrome in association with neuroleptic treatment, we have also seen it occur in patients taking a wide variety of other medications including SSRIs.

Anxiety disorders—with or without dementia

Our drugs of choice for the wide variety of anxiety disorders include buspirone and trazodone. The latter is a far better anti-anxiety drug than an anti-depressant. Now and then we also use benzodiazepines but we prefer buspirone and trazodone. Benzodiazepines are not associated with cognitive impairment, imbalance with falls, delirium, or disinhibition/intoxication states. Buspirone and trazodone do not cause these problems.

We have just begun to try to better identify patients with anxiety disorders and, in particular, the elderly, WWII or Korean War veterans with PTSD. We have successfully used sertraline in two older veterans with PTSD but our impression of its effectiveness awaits further clinical experience with this drug, which now has a FDA approved indication for PTSD.

We have had several patients with OCD respond well to fluvoxamine treatment. One must, of course, remain mindful of the possibility of inducing an episode of mania with this, as with any, antidepressant medication.

Insomnia

We avoid the use of any drug with anticholinergic properties for the treatment of insomnia and, in particular, we do not use diphenhydramine, hydroxyzine, or other similar drugs. We also avoid the use of benzodiazepines for the above mentioned reasons (see under Anxiety disorders). Our preferred drug for insomnia is trazodone and there is sound basis in the literature for the use of this drug, which reportedly improves deep sleep, has no anticholinergic properties and also produces a state of restfulness without cognitive impairment.

Personality disorders

These patients remain some of the most difficult ones to treat. They are also and often some of the most troublesome patients. We have tried various behavioral interventions including the use of behavioral contracts. If we need to resort to the use of psychopharmacologic agents, we usually try gabapentin, buspirone, trazodone or one of the SSRI's.

Strategies for the Treatment of Agitation and/or Aggression in Dementia

Rev. 7-16-99

Dementing Patient Referral
For agitation or aggression

More than one agitated/aggressive episode during the past two weeks

Not delirious

Not in pain

No acute Axis III disorders

No non-psychiatric medication felt to be causing agitation/aggression (e.g. anticholinergic drugs, steroids, etc.)

No Axis I illness other than dementia

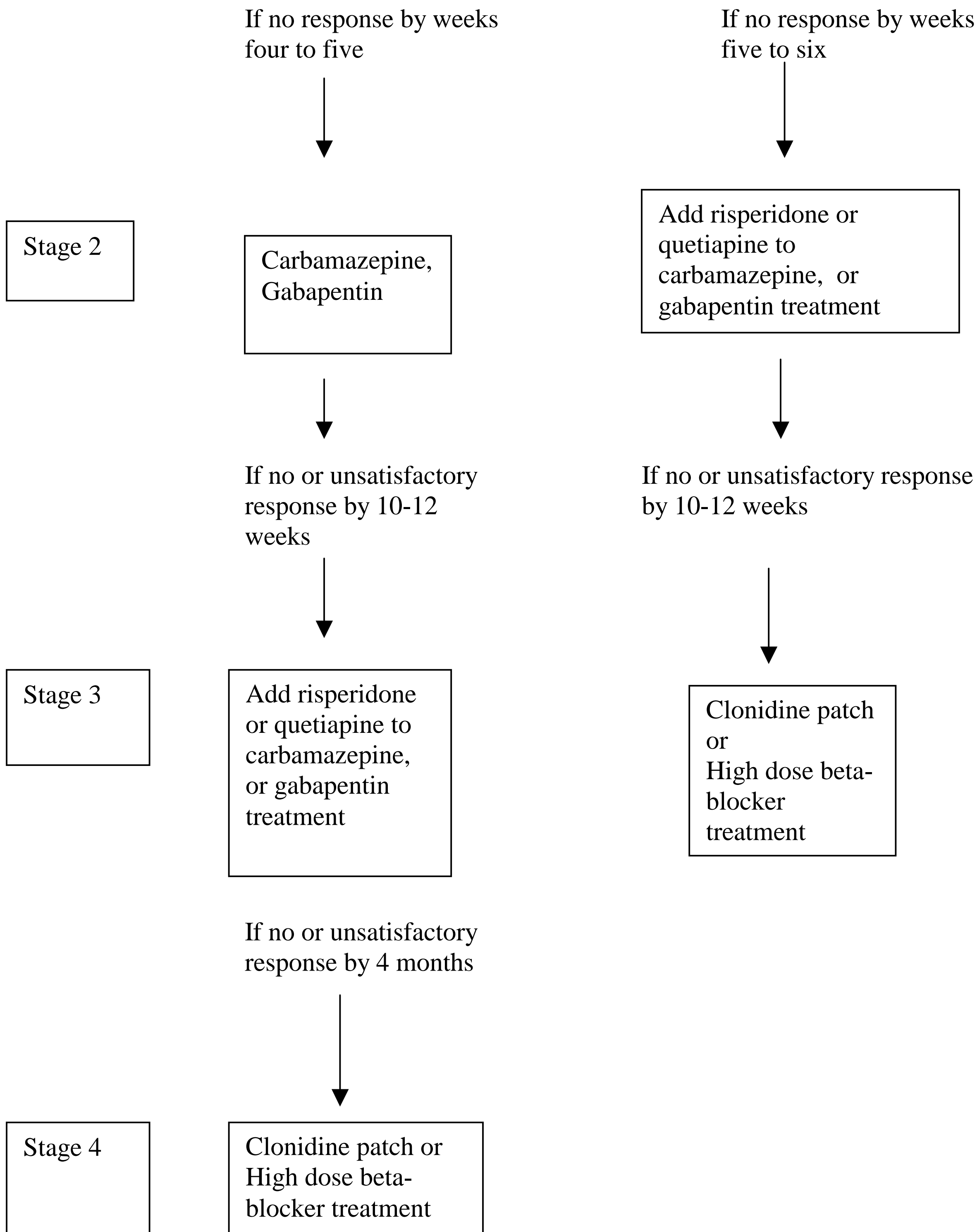
No recent substance use/abuse

No known recent major environmental or psychosocial stressors (e.g. admission to LTC)

	No history of craniotomy	History of craniotomy
Acute phase treatment	Risperidone. oral concentrate Or Quetiapine crushed tablets	Risperidone oral concentrate Or Quetiapine crushed tablets

Chronic phase treatment — N.B. → Please note that chronic phase treatment should be started at the same time as acute phase treatment is being used to stabilize the patient

Stage 1	Buspirone, Trazodone, SSRI	Carbamazepine, Gabapentin



Definitions: LTC = long-term care (e.g. nursing home placement)

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