The Use of Antipsychotic Medication in People with Dementia:

An Audit and Medicines Review

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Introduction

Dementia is a progressive neuropsychiatric syndrome involving neurodegeneration and manifesting as symptoms of cognitive decline. [1] It is a significant clinical problem which afflicts an estimated 35.6 million people around the world, 750,000 of which are in the UK. [2][3] This number would be much greater if one were to include all the people affected by the disease, as multiple families and carers are burdened with progressively distancing and distressed patients. [1] Two thirds of people in nursing homes have dementia, illustrating the need for control of the disease's symptoms. [3] The cause of the symptoms is neuronal damage in the brain, most commonly due to Alzheimer's disease (AD). Other causes include vascular degeneration resulting in brain damage, known as vascular dementia (VaD), Lewy body dementia (LBD) and fronto-temporal dementia (FTD). [1]

As well as cognitive decline, around 90% of patients suffer from any or all of agitation, aggression, depression, and psychosis, which can manifest as delusions or hallucinations, at some point in their illness. However they may not be a persistent feature. [2][3] These symptoms are often collectively known as behavioural and psychological symptoms of dementia (BPSD), a term coined by the International Psychogeriatric Association (IPA). [3] These symptoms, combined with the forgetfulness and general cognitive decline that commonly feature in dementia, can understandably be very distressing for the patient, impacting negatively on their quality of life. [3]

Dementia of any cause is incurable and irreversible. Therefore the management of the disease is centred on relief from symptoms and attempts to improve quality of life. Cognitive symptoms are well managed by either non-pharmaceutical or pharmaceutical interventions. The latter

must be managed by a specialist and any decisions should include input from the patient's carers and the patient themselves if possible. [4]

For many years, a common first line for management of BPSD has been the use of antipsychotic medication. However within the last 4 decades evidence has emerged to discourage their use in light of life-threatening adverse effects that can occur in dementia patients. Since then this topic has been one of great interest. Eighteen placebo-controlled randomized controlled trials have been carried out on people with AD to assess the effectiveness of antipsychotic medication. [2] It has been estimated that their use presents a 1.5- to 1.7-fold increase in mortality risk for AD patients. [2] This is equal to 1,800 additional deaths per year, mostly due to infectious reasons or cerebrovascular events. [5][6]

This notion became officially known to the government through the Banerjee report [5], published in 2009, in which 11 recommendations are made to improve the quality of care to dementia patients. [5]

Aims - and Audit Standard

It is estimated that over 20% of people with dementia in the UK, a proportion equal to approximately 180,000 people, are being prescribed antipsychotic medication at present. [5] This has been identified by NICE as a national problem and since 2009 a nationwide audit has been in progress to assess the extent to which the guidelines are being followed in practice.

My aim is to conduct a similar audit but on a far smaller scale. I will be questioning **how many patients in the practice with dementia are taking antipsychotic medication unnecessarily?** I plan to measure the adherence to the guidelines by a single general practise by questioning how many dementia patients are on one of these drugs and whether they can be discontinued. As a result of this I hope to be able to suggest some changes to patients' prescriptions and aid

putting these into action. My expectations are that I will find some patients that for whom the antipsychotics were not beneficial and I plan to remove the prescriptions if possible. **The target is to have zero patients on unnecessary antipsychotics.** This is defined as:

- Patients who are not on the medication for other reasons (e.g. manic depression).
- Patients who were not put on the medication for the correct reasons.
- Patients who are settled at present and may not need the medication to maintain them in this way.

The principal reason for this audit is simply to minimise the risks of severe adverse effects to dementia patients while still keeping their symptoms well controlled, as outlined by the national guidelines. **The standards I will aim to meet are those laid out by the national audit support guide, which are typically 100% adherence to the guidelines with no exceptions. [7]** Another benefit would be the potential to remove a drug from a patient's prescription, which may be favourable to them. The final reason is to reduce the cost of medication to the practice. This change may be extremely minimal but, if it were to be scaled up to include the entire country, may be vast.

I plan to discuss the outcomes of my work in relation to the 3 reasons above. I will summarise the evidence I have found on this topic and discuss the changes I have made as a result. I also plan to discuss the limitations of my study and how it could be improved. Finally I plan to do a medicines review for one of the patients in my audit, concentrating specifically on their antipsychotic.

Method

Firstly I conducted a search on the practice's computer system to find all the patients registered there who were coded as suffering from dementia. I then added a second criterion to the search to select which of those were being prescribed an antipsychotic drug on a repeat basis. This returned 9 patients, whose information I compiled in a table (see Appendix 1). I then analysed their computerised notes to obtain the following information:

Why they were prescribed the antipsychotic originally. For this I read past clinical letters and past GP entries on the system.

Other diagnoses for which they might be on an antipsychotic, such as manic depression.

When they were last seen by the psychiatry team.

What the most recent recommendation from the psychiatrist was regarding their antipsychotic medication.

I decided that if they had been seen within the last 3 months by psychiatry and that the subsequent recommendation was to continue the drug, the medication was appropriate and needed no change. If the last consultation had been more than 3 months ago I looked through the notes for specialist instruction regarding the medication or more recent entries regarding patients' current symptoms. When unsure I consulted with the GP who commented on the patients and made a clinical decision.

Next I compiled evidence to support my decisions about the patients' medication by conducting a literature search and consulting guidelines. The procedure for deciding the appropriate course of action for these patients is so multi-factorial – one must take into account the severity of the

symptoms, the overall quality of life, any other co-morbidities, and living circumstances. [4][7] Therefore I anticipate that I will not be able to make clinical judgements for these patients. I will therefore consult the psychiatry notes, as mentioned above, and where possible I will talk to the GP and carers concerned with the patient.

The main limitation of this audit is that I only have 4 weeks to do it. This means I will not be able to re-audit the topic during this placement. To get around this problem I could revisit the surgery at a later date to complete the audit cycle. Alternatively I could hand the management of the audit and its results to my supervising GP, and she can re-audit if she deems it necessary. The search criteria and the at-risk group are quite specific so the number of results and the workload should be reasonable. Therefore I should have no problem completing the analysis and implementing initial changes. However the search relies on all patients with dementia having a dementia code on their file. This should be the case for all patients, so for the purpose of this audit I will assume that it is. It will be difficult to look at trends in the data, as one normally would in an audit, because each patient has an individual case. Therefore I will treat each patient as a lone entity and devise individual plans of action. This will be manageable as my sample size is small.

Literature Review

The purpose of the literature review was to gather evidence concerning the first-line use of antipsychotic drugs for BPSD. I was already aware that guidelines had been published by NICE with recommendations for prescribing these drugs but I wanted to research why these recommendations had been made and the other factors involved. This would give my report more credibility and help support a structured argument. It would also enable me to educate

myself on the criteria needed to make and the assessment involved in making fair clinical judgements so I could apply this to real life situations in the practice.

Search criteria and metrics

For my literature search I used PubMed because it is well established and comprises a wide range of databases in its searches. I used an advanced search with key words '*dementia', 'efficacy', 'adverse effect'* and '*antipsychotic'.* I then refined my search criteria to only show results published since the revised NICE guidelines in March 2011 (the original guidelines having been published in 2006). I did this because any evidence from this period would not be included in the guidelines and therefore new information may be gleaned from it. However this did not return an adequate number of results so I removed the timeframe limitation.

I chose a review article published in 2012 in the American Journal of Psychiatry as a principal source. This is because it is very recent and reviews a wide range of evidence. It compasses information from many other articles and has been critically appraised. For these reasons I think it to be very reliable. Following my reading of this article I was aware of the Banerjee report [5] that sparked the nationwide interest on this topic. I will use this report because it is a leader in its field and has the approval of many interdisciplinary foundations including the Royal College of Psychiatrists and the International Marketing Services for Health.

My primary resource for specific guidance will be the 2009 revised NICE guidelines [4] and NICE Best Practice Handbook [3], as these are very reliable and are based on all available evidence. The fact that there is a nationwide audit to encourage the strict adherence to these guidelines makes them a very favourable source, and for this reason I will use these as a reference for best practice.

I intentionally did not select any sources that were individual studies, such as randomized trials or cohort studies, because there were so many systematic reviews available that summarised the information in the studies and had been appraised, so were more reliable.

The guidelines on antipsychotic use in for BPSD state that they should not be used as first line treatment, as appears to be happening currently in some cases. [2][3][5] NICE states that one should:

> *'Consider medication for non-cognitive symptoms or behaviour that challenges in the first instance only if there is severe distress or an immediate risk of harm to the person with dementia or others'.*

NICE suggests several non-pharmacological interventions such as aromatherapy and the therapeutic use of music and/or dancing for less severe symptoms. It strongly advises against the pharmacological intervention for mild-to-moderate symptoms in all dementias because of increased risk of cerebrovascular adverse events and death, and especially in DLB where there is a high risk of severe adverse reactions. [4] There is a list of criteria that should be adhered to if one finds that medical intervention is a reasonable option:

- Risks (including all risk factors for cerebrovascular disease) and benefits should be discussed with the person and/or carers.
- Discuss the possible increased risk of stroke/TIA and adverse effects on cognition.
- Changes in cognition should be regularly assessed and recorded and alternative medications used if necessary.
- Specific target symptoms should be identified, quantified, and documented, and any changes regularly assessed and recorded.

- Co-morbid conditions, such as depression, should be considered during assessment and drug choice.
- The drug should be chosen after individual risk-benefit analyses. The starting dose should be low and the treatment time limited.
- In DLB neuroleptic-sensitivity reactions should be closely monitored.

The Handbook issued by the Department of Health splits the BPSD into 3 categories depending on the interventions needed: prevention, watchful waiting, and specific interventions. Flowcharts and checklists are provided to help guide one through the assessment of a person with dementia.

The reviews I have read all support the above notion, as stated by NICE. Although largely unbiased in their reports, from the evidence they summarise, the above suggestions are the logical inferences. There appears to be two major approaches to assessing necessity for use: efficacy of the drugs and risk of increased mortality. There is much evidence to show that antipsychotics have a modest efficacy in the short term. [2][5] Banerjee [5] estimated in 2009 that 180,000 people with dementia were being treated with antipsychotic medication in the UK per year. Of these, only about 36,000 would experience some benefit. [5] The long term benefits are not well documented. This could be because the focus on this topic only came about recently and there has not been time to conduct longer-term studies. Conversely it has been suggested that the mortality remains increased in the long term. [8] Most of the trials reported had durations of 6-12 weeks which may not be long enough to give a true representation of the efficacy over a long time. [11]

There is a general consensus to say that there is increased risk of mortality for patients with dementia who are taking an antipsychotic, compared to those taking a placebo. [5][9] This is due to the side effects that occur, the main ones being as follows. [2][5][9]

- Parkinsonism (fine tremor, lead pipe/cogwheel rigidity, shuffling gait)
- Sedation
- Other gait disturbances
- Increased incidence of respiratory infections
- Accelerated cognitive decline
- Oedema
- Stroke (>3-fold) and other thrombo-embolic events
- Mortality (1.5- to 1.7-fold)
- Typical antipsychotics are associated with QTc interval prolongation and more severe extrapyramidal symptoms.

Although not all of these are fatal in themselves, some can lead to falls, which have increased incidence in these patients.

I have inferred that the decision to use antipsychotics depends on the analysis of risks and benefits for each individual patient. This applies when selecting a drug as well. If the benefits outweigh the risks in the short term, for example during an acute aggressive episode, then the psychiatrist is well within his rights to prescribe the drug. It seems there is an emphasis on the prescription being time-limited and regular checks being done regarding symptoms and medication.

However, as a first line intervention, non-pharmacological techniques should be trialled. The recommendations for this in the NICE handbook [3] are split into watchful waiting and specific interventions. There is an emphasis on getting to know the person, which will most likely be the case anyway if the carer is a family member. Cater to their social, spiritual, and cultural needs. Address their fears and opinions. It has been shown that spending 10 minutes one-on-one time with a person a day can be of real benefit. The same can be said for frequent 30 second social interactions, for example using the time it takes to help the patient with a task to socialise with them. [3] Providing activities such as a life story book and maintaining good sleep hygiene are also important. The specific interventions are categorised more thoroughly [3]:

- A complete medical review should be done.
- Psychological interventions include improving social interactions and promoting positive, personalised activities and exercise. Specialist referral to a psychologist may be useful to construct an antecedent behaviour consequence (ABC) chart. This allows one to make a note of the time, setting, and frequency of the behaviour. [14]
- Depression often co-exists, and if the above strategies fail, may need to be treated pharmacologically, with Citalopram 10mg/day for example.
- Sleep disturbance can heighten agitation and worsen symptoms. If improving the person's sleep hygiene does not work a hypnotic medication may be considered.
- For more intense symptoms such as agitation, aggression, and psychosis analgesics may be of use, such as Paracetamol. Also consider altering the dose of, or adding, an AChE inhibitor.
- If antipsychotics are deemed necessary, the choice recommended by Best Practice is Risperdal for 6 weeks. But this decision should be tailored to the patient concerned.

Non-pharmacological interventions should always be attempted as first line where possible. There is evidence to show that they are more cost-effective as well as allowing avoidance of an antipsychotic. [5][13]

Discussion

Managing dementia appears to be a daunting task. It so is multi-factorial and the prevalence is ever growing, owing to our aging population.

The symptoms are greatly variable depending on the patient. The key to diagnosis is to speak to someone who knows that patient well so the degree of change in their memory, behaviour and/or personality can be adequately assessed. [1] Even this step may be challenging where some people are involved if they are isolated or has no family. More difficulty may be due to the fact that some people still cope very well with daily tasks (e.g. financial, house-keeping) even though they have significant impairment, and others may be disproportionately affected. [1] Symptoms nearly always include memory loss and difficulty in completing day-to-day tasks. But there may also be agitation, aggression, wandering, hallucinations, slow repetitious speech, apathy, and mood disturbance. [1] Depression commonly accompanies dementia, which can also make assessment challenging. [1]

Once diagnosed, dementia can be staged using the Global Deterioration Scale for of Primary Degenerative Dementia (GDS). Also known as the Reisberg Scale, it comprises seven stages starting from no dementia at stages 1 through 3 and ending at stage 7 with late-stage dementia. It can be seen form this classifications (table 1) that there can be cognitive decline without a diagnosis of dementia.

Once diagnosis and staging are complete, management becomes the focus. Cognitive decline can be helped by prescribing an Acetylcholinesterase (AChE) inhibitor; Donepezil, Galantamine,

or Rivastigmine. Severe Alzheimer's disease or those who are intolerant to AChE inhibitors may be treated with Memantine. [4]

Behavioural symptoms that develop such as aggression and anxiety may be considerably distressing for the person and difficult to cope with for the carer. Therefore the need to manage these symptoms is both understandable and necessary. In the past and often nowadays, when these symptoms became too much, doctors would prescribe antipsychotics such as Haloperidol, Quetiapine, and Olanzapine. However current guidelines state that people with dementia should not be on antipsychotic medication for their BPSD unless it is completely necessary, and even then it should only be for the short term. This is backed up by evidence with shows this causes increased mortality from strokes, infections, and falls, amongst other things, without greatly improving the symptoms. [2][3][5][7][9][11]

The over-prescribing of these drugs is a nationwide problem [5] and the best way to combat it is for each PCT to do their part. [7] It is no mean feat for a GP to alter medication that is mostly managed in secondary care, as is the case with antipsychotics. However it is important what these medications are reviewed as patients' circumstances and behaviours change over time. Some prescriptions are started by GPs or during acute hospital admissions. I am aware that the GP may need to consult with the psychiatrist before a change is made. I feel that any prescriptions that go against guideline recommendations are not due to a fault in the GP's care per se, as it is not usually the GP who first prescribes these drugs.

Trafford PCT, where I did this study, already has a support network set up to help with the non-pharmacological aspect of dementia management. They work with Trafford Council to run the Dementia Strategy Group which includes a GP, commissioners for the PCT and the council, representatives from Age UK, Trafford carers, a representative from an ethnic minorities group, a local hospital dementia liaison nurse, and a representative from a housing organisation.

The group has an educational strategy to support nursing staff and care home staff in their accessing education in dementia care. This includes behavioural aspects.

It must be made clear that the restriction is placed on those who are using antipsychotics for their behavioural symptoms in dementia, not those who are using them for something else who happen to also have dementia. For example 2 of the patients in my audit were on their antipsychotic medication for delusional and depressive disorders respectively. Even so the risk and benefits should be weighed up, taking the dementia into account, which, for the purpose of this study I assumed had been done by the psychiatry team at the last meeting.

Results and Medication Review

Of the 14,000 patients registered at the surgery, there are 9 who are coded on the system as having both dementia and a repeat prescription for an antipsychotic drug. These patients and their relevant information can be seen in appendix 1 in tabular form.

Of these patients, 4 had been seen by their psychiatrist within the last 2 months and had been told either to continue or increase their antipsychotic medication. These patients required no intervention from the primary care team.

One patient, upon reading her notes, seemed fine, and the latest advice from the specialist was to reduce or even discontinue her medication as she seemed settled. However the GP disagreed with this because the reason for recent referral to the psychiatrist was aggressive outbursts, shouting, and hitting fellow patients and staff. The psychiatrist offered no alternative strategy to care for this patient. This behaviour has been occurring for several years and is still a problem according to recent GP assessment. The GP feels this patient, who has advanced dementia, is now inappropriately placed in a residential home rather than a specialised dementia nursing home. However the patient is 96 years old and has lived in her current home

for 9 years, where her family is happy that she is settled and do not wish for her to move from. Furthermore moving her now is likely to cause significant distress. The GP thinks that keeping her where she is on her current low dose of Olanzapine is a better option than uprooting her at this age and the family appears to agree. Therefore no change needs to be made to her medication.

This left 4 that required reviewing. I reported my findings to the GP and we discussed the interventions that were required *(Ed: see Appendix for detailed Medication review)*.

Future plans and obstacles to implementation

To improve the issue regarding antipsychotic medication it is necessary that all the GPs in the surgery are aware of the guidelines and do not prescribe antipsychotics unnecessarily. Many people show significant improvement in their BPSD over 4-6 weeks without medical intervention. [3] Therefore patients need to be checked frequently if they present with behavioural symptoms. Prescriptions from other sources such as psychiatrists and hospital wards are beyond the control of this practice. However I recommend that a procedure is put into place to make sure patients on antipsychotics are regularly assessed by their GP and that their need is accounted for. Seventy percent of patient's symptoms do not worsen when their antipsychotics are discontinued [3], which could be due to the transient nature of the symptoms. Therefore it is likely to be worthwhile to trial patients without their medication.

Suggesting the removal of a drug is simple but the need to manage the symptoms may still be there. For the carers, giving the person a tablet is a lot easier and less time-consuming than most of the non-pharmacological interventions. It may also appear to them to have more efficacy. Therefore it is often difficult to persuade a carer to stop the drug, even if the risks are explained. Also knowledge of non-pharmacological interventions may be limited, therefore it is

the GP's task to aid the education of the carers and sound optimistic about the potential benefits.

I think the only way to achieve the target of zero patients being on an antipsychotic unnecessarily is for GPs to address each patient individually and assess their need for the drug. I recommend regularly re-auditing this topic to allow changes to be made gradually, such as titrating down a patient's drug dose. One may also need to wait until a person's circumstances have become more stable, for example after they have been discharged form hospital. If resistance is met initially I recommend that the doctor persists in the matter, leaving intervals between each attempt, for example one month.

I think that a programme of education for all carers of dementia patients is an excellent idea. I think it would be very valuable to promote better understanding of the progression of the disease and the management of associated symptoms, with a focus on non-pharmacological management. I think this is essential to achieve a significant reduction in the prescribing of antipsychotic medication for BPSD.

Conclusion

The answer to the problems raised by this audit is not as simple as sending a letter out to everyone at risk and telling them to stop their antipsychotic; much thought and consideration needs to go into these cases, as I have personally discovered. I think this can be done as the number of patients that need to be assessed is small in this practice, and I assume it will be roughly the same in others. If the task were to be split between doctors I think it would be easy to address. However it is not the GP attitudes that are the main obstacle. It is implementing the change in homes and nursing homes and will prove to be difficult. If a carer or patient sees that a GP is passionate about the change maybe they will be more likely to consider it. This way the target will more likely be met.

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Appendix 1: Table of patients involved in audit. Date of search: 21.06.12*(Ed.)* **and analysis of patients (in red) requiring GP review and action**.

ID	Diagnosis	Current Antipsychotic (last issue)	More information	Last seen by Psychiatrist
F	Alzheimer's disease	Olanzapine Tablets 2.5mg (13/07/12)	Current in-patient	07/06/12 – told to restart Olanzapine due to ++ agitation after being told to discontinue 24/05/12
G	Alzheimer's disease	Quetiapine Fumerate Tablets 25mg (25/06/12)	Manic depressive illness	03/04/12 - dementia medication changed but told to continue Quetiapine
H	Dementia in Huntington's disease	Quetiapine Fumerate Tablets 25mg (28/06/12)	Quetiapine for depression	22/05/12 – told to continue Quetiapine and review in two months
C	Dementia	Quetiapine Fumerate Tablets 25mg (08/06/12)	Quetiapine for sleep pattern and nocturnal agitation; started by neurologist	None since before Feb 2011 (when joined practice)
I	Multi-infarct dementia	Olanzapine Tablets 5mg (13/06/12)	GP says unfit to remove Olanzapine due to aggressive outbursts and attacking residential home staff	16/05/12 – "settled", consider taking off Olanzapine if well; 19/06/12 – discharged form services
J	Vascular dementia	Risperdal Liquid 1mg/ml (14/06/12)	Risperdal for paranoid ideation	13/06/12 – told to increase Risperdal dose in morning
AB	Alzheimer's disease	Olanzapine Tablets 2.5mg (05/07/12)	Olanzapine for 'other acute delusional disorder'; past hx schizophrenia	28/02/12 – told to taper off Olanzapine over next four weeks and review in 2 months
D	Dementia	Olanzapine Tablets (26/06/12)	Olanzapine for 'severe depressive episode with psychotic symptoms'	16/04/12 – GP care home assessment told to continue Olanzapine 05/10/11 – Psychiatrist visit; patient refused to see doctor; staff not keen to change medication because settled
E	Vascular dementia	Haloperidol Capsules 500mcg (21/06/12)	Started for agitation as in-patient on acute medical ward	None since 2010 (when joined surgery)

Appendix 2: AB's Repeat Prescriptions

Detailed review of AB's Repeat Prescriptions

Patient AB, an 89 year old female, had been told by her psychiatrist to taper off her Olanzapine over the next 4 months by taking it on alternate days and be reviewed in 2 months. However this change was never processed and she was still receiving her usual dose of 2.5mg. In response to this the GP updated the patient's prescription to issue fewer tablets with instructions to take them on Monday, Wednesday, and Saturday only for the next 4 weeks, then to stop Olanzapine completely. This information was reaffirmed by another GP who visited the patient at her home 2 days later. The patient's daughter said she would organise the new dose and was advised to monitor for shaking symptoms.

Patient C is currently an in-patient so intervention is not appropriate at this time. However he will be targeted when he is discharged as his antipsychotic is most likely not necessary.

Patient D is an 83 year old male with a history of schizophrenia and severe depressive episodes with psychotic symptoms. For this reason the GP has decided not to remove his antipsychotic and will refer him to psychiatry for a review, his last psychiatric assessment being over 6 months ago.

Patient E is a 79 year old woman (initials AB) with vascular dementia. Her other diagnoses are hypothyroidism, hypertension, seropositive rheumatoid arthritis (RA), cerebrovascular disease, osteoporosis, anxiety with depression, Barrett's oesophagus, and chronic anaemia. Her list of medication is extensive (see appendix) and includes Haloperidol, a typical antipsychotic. As the GP and I were reviewing this patient we considered her other medication. We visited AB in the residential home where she lives. On meeting her she looked extremely pale and frail. She had

an intensely slow, shuffling gait and did not speak much. When she did speak however, she was entirely coherent and did not appear to me to be obviously demented. The medications addressed at this point are as follows.

1. We reduced her fentanyl patch dose from 75mcg/hr to 50mcg/hr in view of her arthritic pain being better controlled due to commencement of a biological agent, Infliximab, in the treatment of her RA. Another reason for this was a long standing complaint of nausea from the patient.
2. The GP contacted her rheumatologist with the view of reducing the number of drugs for her advanced rheumatoid arthritis. She had recently started taking Infliximab injections because her other rheumatoid arthritis drugs were not controlling the disease activity adequately. The rheumatologist said that Hydroxychloroquine could be stopped and that Salazopyrin may be able to be stopped in the near future.
3. Her Ferrous Fumarate was stopped because her iron stored have now been repleted.
4. The GP had already reduced AB's Haloperidol dose from 1000mcg to 500mcg daily. The suggestion to reduce this dose further to 250mcg was met with resistance from the residential home carer with whom we met. The carer said that AB was still agitated and she was constantly asking for her husband. Her husband visits nearly every day and was there while we met AB. AB's Haloperidol was started during a hospital admission in 2010 due to an acute confusional, agitated state. This was also a time of great change in AB's life – her dementia was progressing and she had just moved from her home with her husband to a residential home. Since then her Haloperidol had not been reviewed. She has had 2 hospital admissions during the last 6 weeks for urinary tract infections. As she was not commenced on Haloperidol for her dementia, and the acute episode she

suffered has long since passed I think it is reasonable to remove this medication. The agitation described by the carer did not sound severe enough to warrant an antipsychotic, and could be addressed non-pharmacologically. However the GP agreed to keep the dose as it is for now, given the recent hospital admissions which may have made her more agitated. This will be reviewed again in 1 month.

- **Calcium Carbonate and Colecalciferol Chewable Tablets 1.5g + 10mcg** (400 units) bd 56 tablets
- **Levothyroxine Sodium Tablets 100mcg** od 28 tablets
- **Prednisolone E/C Tablets 5mg** mane 28 tablets
- **Salazopyrin En-Tablets 500mg** qds 112 tablets
- **Haloperidol Capsules 500mcg** 1 nocte 28 capsules
- **Senna Tablets 7.5mg** 2 nocte 56 tablets
- **Hydroxychloroquine Sulphate Tablets 200mg** mane 28 tablets
- **Zopiclone Tablets 7.5mg** nocte 28 tablets
- **Diazepam Tablets 2mg** bd 56 tablets
- **Citalopram Hydrobromine Tablets 20mg** od 28 tablets
- **Esomprazole Gastro-Resistant Tablets 40mg** bd tablets
- **Levothyroxine Sodium Tablets 50mcg** od 28 tablets
- **Docusate Sodium Capsules 100mg** bd 56 tablets
- **Folic Acid Tablets 5mg** once weekly (Sunday) 4 tablets
- **Methotrexate Tablets 2.5mg** 20mg(eight tablets) to be taken weekly 32 tablets
- **Ferrous Fumarate Tablets 210mg** bd 56 tablets
- **Prednisolone E/C Tablets 2.5mg** od 28 tablets
- **Matrifen (Fentanyl) Transdermal Patches 75mcg/hr** apply 1 patch every 3 days 2*5 patches
- **Lactulose Solution 3.1-3.7g/5ml** 10-20ml bd 500ml
- **Calogen Neutral Emulsion 200ml** 30ml bd 200*1 bottle
- **Levothyroxine Sodium Tablets 25mcg** od 28 tablets
- **Paracetamol Tablets 500mg** 2 prn 224 tablets