

Dementia

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Barnsley

17/05/2017

Overview

Dementia Journey

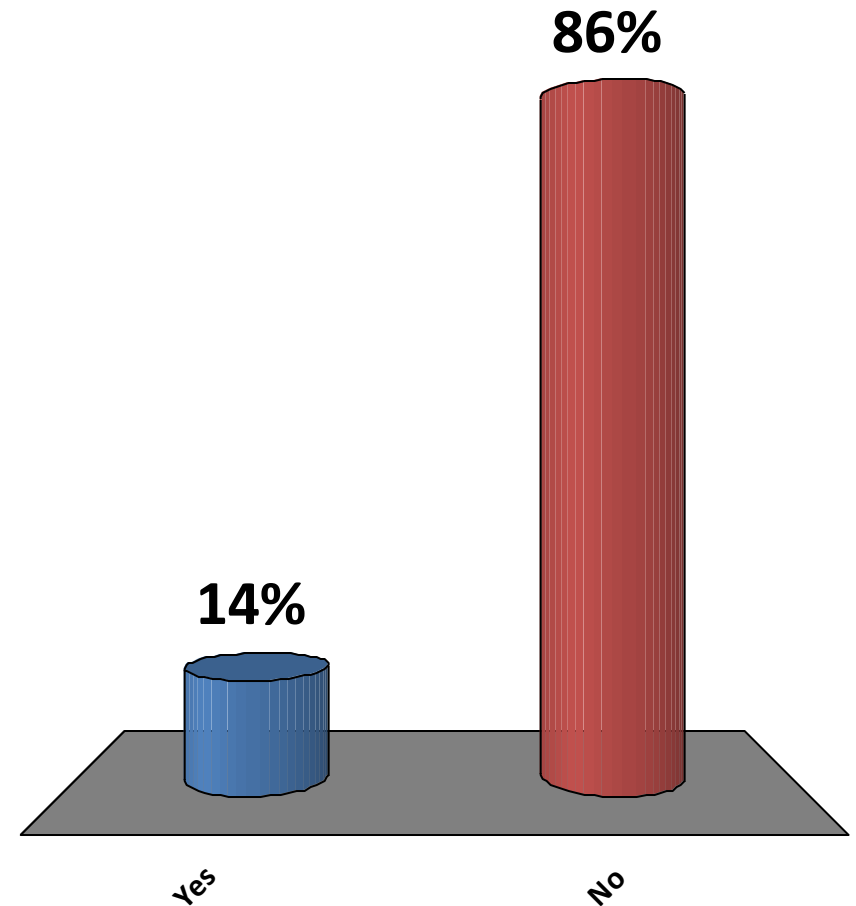
Mrs Mary Smith

- Pointers for effective screening during referral
- Dementia diagnosis in Primary Care
- MASS (Memory Assessment and Support Services) – New Service Spec
- Shared Care
- Cognitive enhancers – Evidence base
- Capacity assessment
- BPSDs - Antipsychotics in Dementia

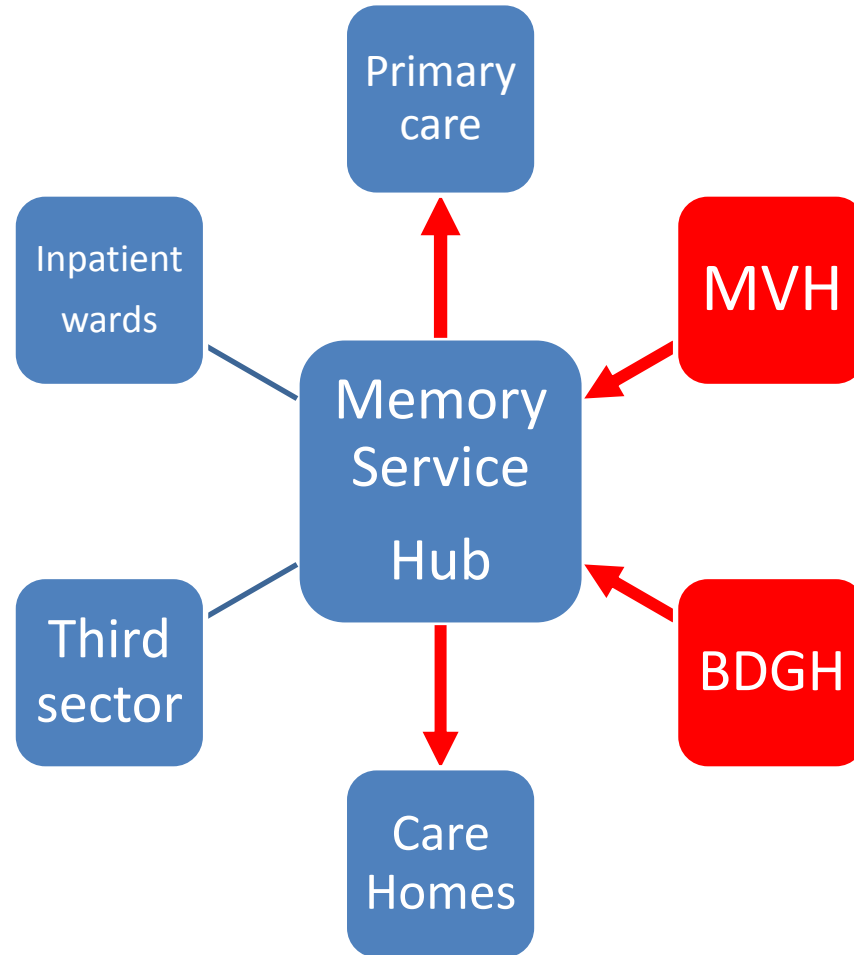
Are you aware of the new service specifications for Memory Assessment and Support Services (MASS)?

A. Yes

B. No

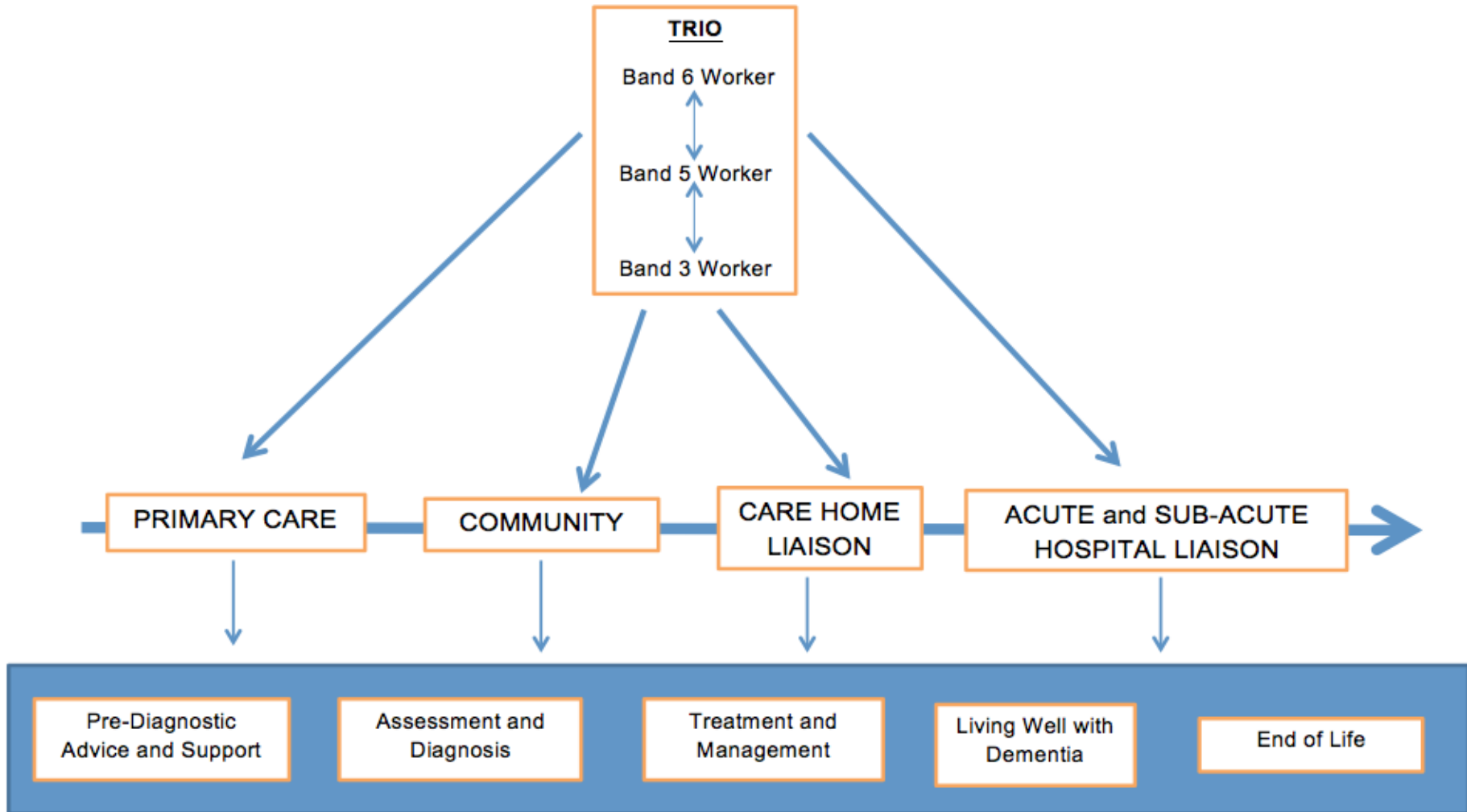


“Hub and Spoke” model



Trios/Dementia Advisor Function

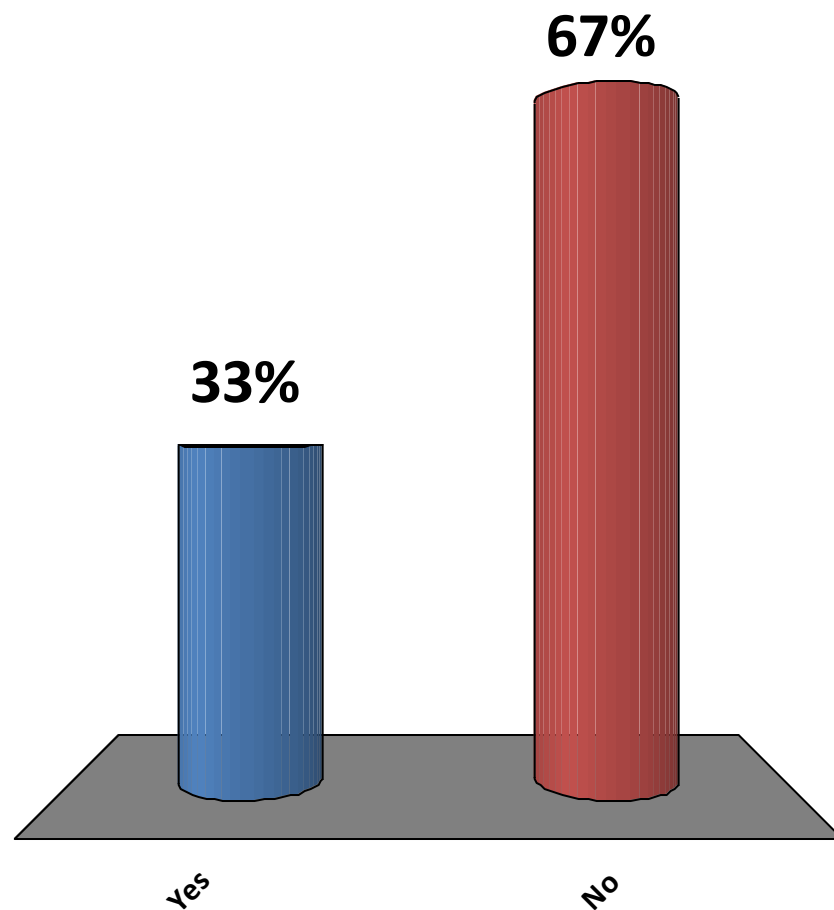
TRIO Pathway/Functions from Pre-diagnosis to End of Life



Do you know who your Dementia advisor/Trio is ?

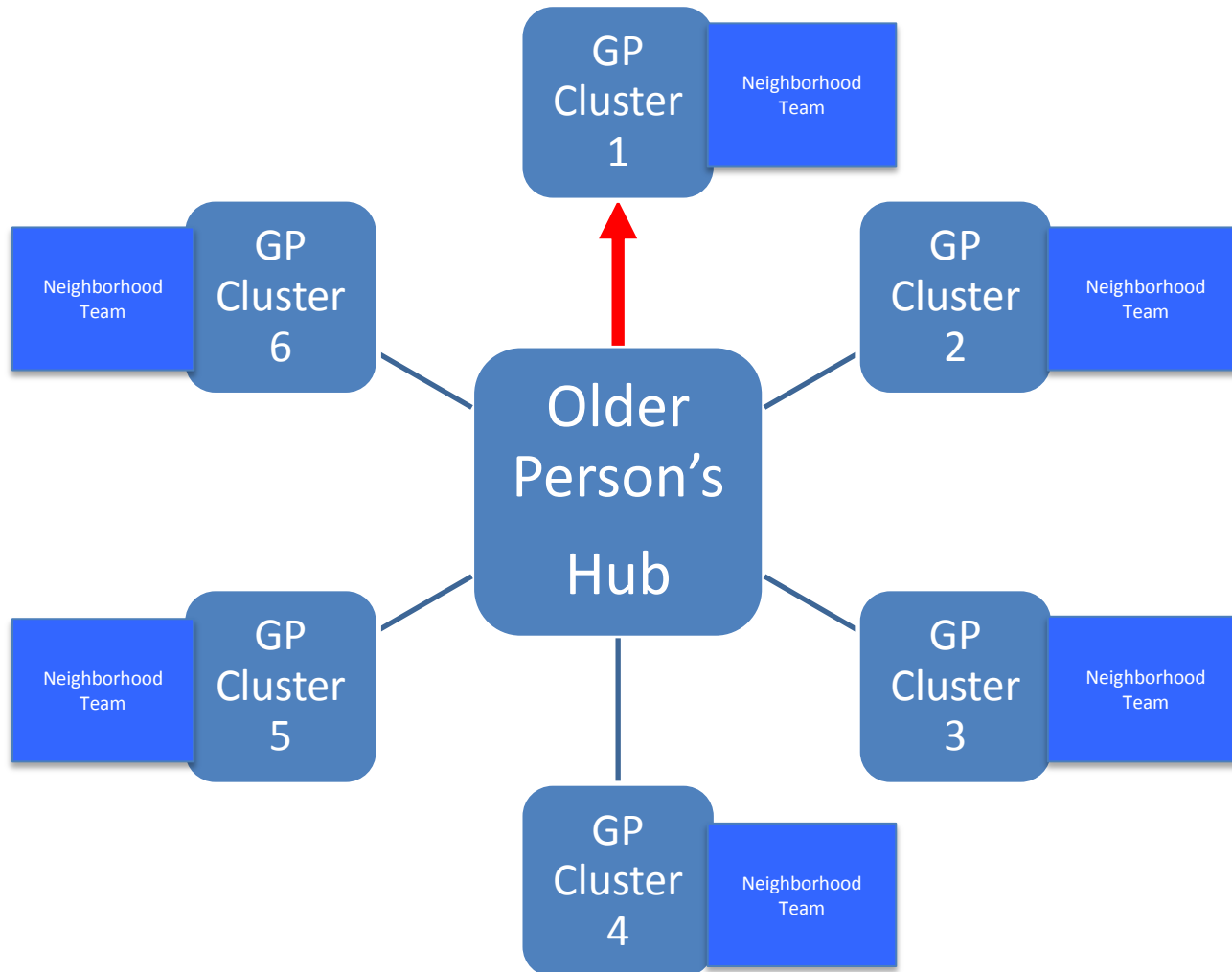
A. Yes

B. No



“Hub and Spoke” model

Integration with Primary Care



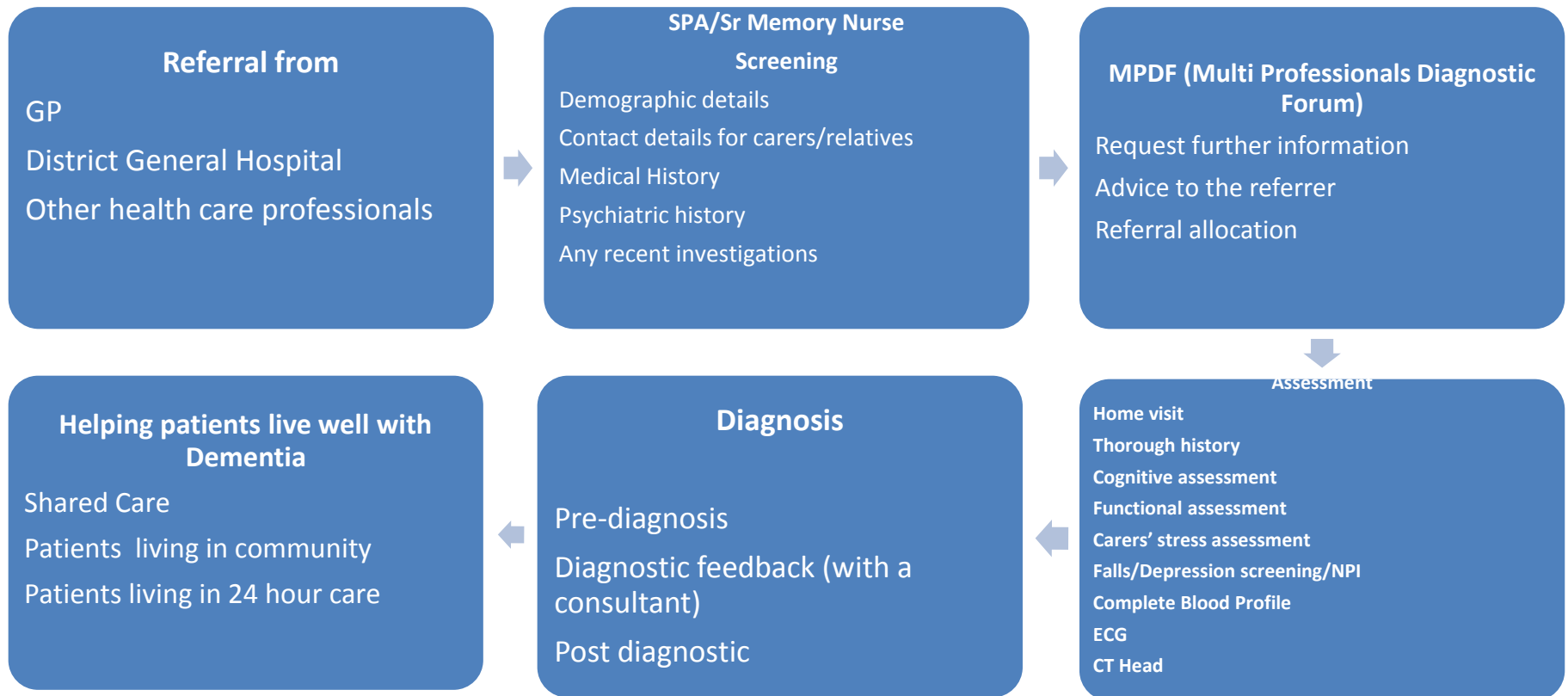
Service offer



Barnsley Memory
Services



Dementia Pathway



HISTORY

Mrs Mary Smith's Journey - 1

- Mary, 72 yr, Caucasian, female, widow, living on her own - 6 month h/o memory problems.
- Daughter more concerned about memory problems.
- Mary does not acknowledge she has any problems, attributes minor memory deficits to age
- h/o AF, HTN, depression, insomnia, over active bladder
- Aspirin, Oxybutynin, Sertraline, Amitryptiline

History

- Different perspectives – client, carer, relative
- Onset, duration, progression
 - Sudden onset – Not always secondary to vascular cause
 - Degenerative dementias often present “suddenly” in new environments
 - DLB – Marked fluctuations
 - Several year history – “worried well”
 - Very clear short History – treatable dementia
- Staging –
 - When did he/she stop going out, shopping himself
 - When did he/she stop performing house hold duties
 - Dementia - “Spouses gradually take over”

Four tasks during history

Task 1	Does the patient have an organic cognitive problem?
Task 2	Is the disease process static, progressive, vascular, degenerative etc?
Task 3	Which cognitive domains are involved?
Task 4	Is the patient depressed and is there any thing else in the history?

Four tasks during history

Task 1	Does the patient have an organic cognitive problem?
Task 2	Is the disease process static, progressive, vascular, degenerative etc?
Task 3	Which cognitive domains are involved?
Task 4	Is the patient depressed and is there any thing else in the history?

Effective referral – Maximising info

- Implicit sources of information
 - Is the gait abnormal?
 - Gait – Apraxic gait – Vascular cause, NPH
 - Is there any sensory impairment?
 - Deafness, L/O vision
 - How easily does the patient find the seat?
 - “bum” apraxia!!
 - Who plays the primary role during the consultation?
 - Classical “head turning sign”
 - What is the quality of interaction in the consultation?
 - Disinterested in conversation, speech,
 - Any evidence of tremors, visuospatial problems, eye movements?

Task 1 – Is there an organic problem?



Task 1 – Is there an organic problem?



- Anecdotes of the patient lapses
- Direct questions
 - Worst thing that has happened because your memory has let you down?
 - How has life changed?
 - What does your poor memory stop you from doing?

Task 1 – Is there an organic problem?

Complaints that are poor discriminators of an organic problem

Going shopping and forgetting items

Losing watch, glasses

Going in to a room and forgetting why

Forgetting appointments

Not passing on messages

Losing the car in the multi-storey car park

Having to be told more than once

Task 1 – Is there an organic problem?

Complaints that are good discriminators

Asks the same question repeatedly

Participates in a conversation and then forgets it has ever occurred

Takes the spouse shopping comes back alone

Goes to town by car and comes back by bus

Gets lost every time/most of the time he is in unfamiliar place

We wanted to have fish for dinner. She just said “what is fish?”

“She has always done the Christmas cards before but this year was chaos”

“She can’t find a pencil when it is right in front of her and complains her eyes aren’t working. But the optician could not help”

Task 1 – Is there an organic problem?

Pointers to organic disease

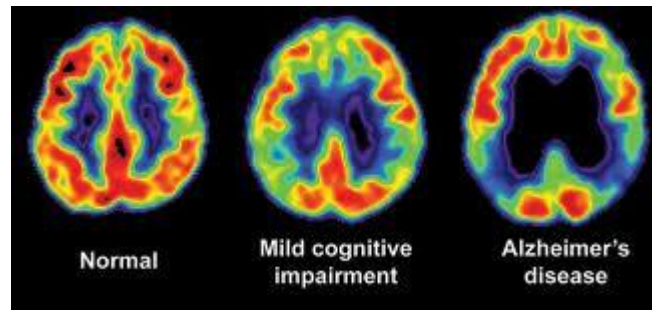
Pointer 1 Partner/relative/carer is more concerned than the patient

Pointer 2 Partner/relative/carer takes the lead in arranging the referral and dominates the interview

Pointer 3 Loss of functioning – no longer able to shop, budget, perform household duties

Pointer 4 Episodes of marked disorientation in new environments

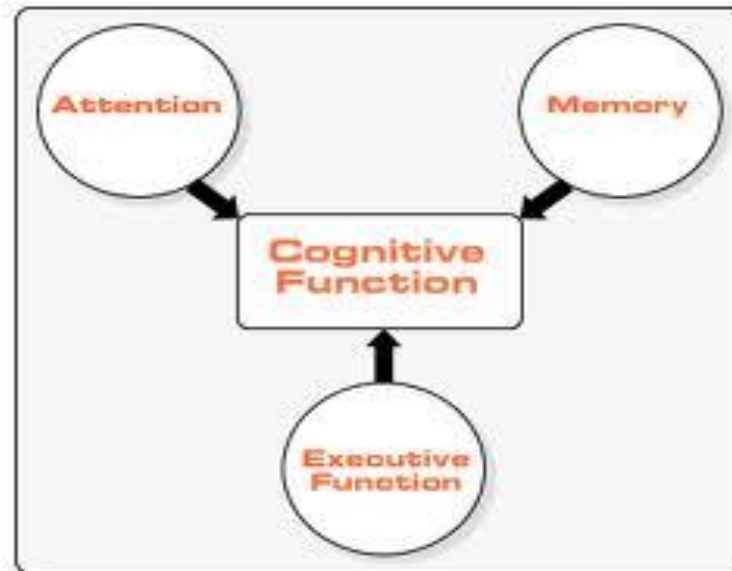
Task 2 – Nature of Dementia



Age as a discriminator

Patients under 40 years	<ul style="list-style-type: none">• Sporadic degenerative dementias are extremely rare• Usually have a psychiatric disease• Usually worried well• Rarely will have neurological problems/MS or very rare metabolic disease
Patients 40 – 55 years	<ul style="list-style-type: none">• Age of the worried well• Some degenerative disease – FTD possible• Secondary dementias can occur
Patients 55 – 65 years	<ul style="list-style-type: none">• Organic disease becomes commoner• Typical age for FTD• Familial AD
Patients over 65	<ul style="list-style-type: none">• Most will have organic disease

Task 3 – Which cognitive domains are involved?



Leave this job for us!!!

Task 4 – Is the patient depressed and is there any thing else?



Depression and other causes

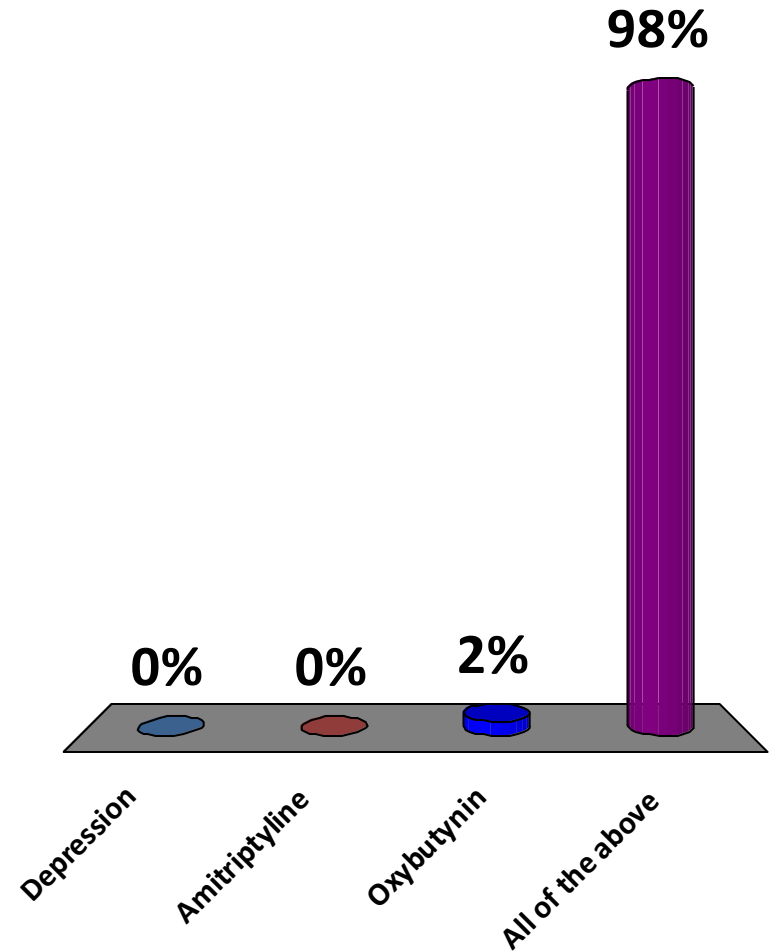
Depression	<ul style="list-style-type: none">• Most important to establish• Treatable• Dementia and depression often coexist
Medical history	<ul style="list-style-type: none">• Vascular risk factors• Head injury• Seizures
Drug history	<ul style="list-style-type: none">• Anticonvulsants• Lithium• Any centrally acting drug
Family History	<ul style="list-style-type: none">• Huntington's , Early onset Alzheimer's, FTD
Social History	<ul style="list-style-type: none">• Alcohol

Mrs Mary Smith's Journey - 1

- Mary, 72 yr, Caucasian, female, widow, living on her own - 6 month h/o memory problems.
- Daughter more concerned about memory problems.
- Mary does not acknowledge she has any problems, attributes minor memory deficits to age
- h/o AF, HTN, depression, insomnia, over active bladder
- Aspirin, Oxybutynin, Sertraline, Amitryptiline

Which of these could potentially have an impact on Mary's memory problems?

- A. Depression
- B. Amitriptyline
- C. Oxybutynin
- D. All of the above



Cognitive Screening Tools

- 6 CIT (6 item Cognitive Impairment Test)
- AMT (Abbreviated Mental Test)
- GPCOG Screening test
- CLOX 1 & 2 (Executive Clock Drawing Test)
- MINICOG
- CAM (Confusion Assessment Method)
- IQCODE

[Contact numbers](#)[Diagnostic tools](#)[Prescribing guidelines](#)[Patient information sheets](#)[Investigation/referrals](#)[Useful websites](#)

Top diagnostic tools

[6CIT- dementia screening tool](#)[ABCD2 Score -TIA / Barnsley TIA Clinic Referral Form](#)[Abnormal LFT Barnsley / FIB4](#)[Acute Kidney Injury AKI](#)[Alcohol Units](#)[Asthma Peak Flow Monitor chart](#)[Blood transfusion thresholds](#)[Bristol Stool score / Laxative guidelines](#)[CENTOR Score/Fever SCORE](#)[CHA2DS2 VASC /HAS BLEED](#)[CKD Algorithm](#)[Clinical Thresholds Barnsley](#)[Dermatology Quality of Life Index DQLI](#)[Dyspepsia](#)[Epworth sleepiness score](#)[Familial Hypercholesterolaemia- Simon Broome Criteria/ referral criteria](#)[Hypertension diagnosis and treatment / Home blood pressure monitoring](#)[IBS Diagnostic pathway / IBS treatment](#)[IPSS / fluid input/output chart /LUTS pathway](#)[Iron deficiency Anaemia](#)[Menstrual Diary/PMS symptoms/premenstrual syndrome diary](#)[MRC Dyspnoea Scale Questions](#)[NEWS -National Early warning Score](#)[Pain Rating Scale](#)[PHQ-9 Questions](#)[Pneumonia -CURB Score](#)[Paeds: Traffic Light System/ vital signs normal range](#)[QRISK](#)[URTI- evidence based on RTI](#)[SKIN lesion recognition table 1/ table 2 / lesion terminology /skin cancer ABCDE](#)[Spirometry interpretation](#)[Suspected Cancer-referral criteria](#)

Confusion Assessment Method

The Confusion Assessment Method (CAM) Diagnostic Algorithm

Consider the diagnosis of delirium if 1 and 2, AND either 3a or 3b are positive:

1. Acute Onset and Fluctuating Course

Is there evidence of an acute change in mental status from the patient's baseline?

Did the (abnormal) behavior fluctuate during the day (tend to come and go, or increase and decrease in severity)?

2. Inattention

Did the patient have difficulty focusing attention (e.g. being easily distractible) or have difficulty keeping track of what was being said?

3a. Disorganized Thinking

Was the patient's thinking disorganized or incoherent: such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?

3b. Altered Level of Consciousness

Overall, how would you rate this patient's level of consciousness? (alert [normal], vigilant [hyper-alert], lethargic [drowsy, easily aroused], stupor [difficult to arouse], or coma [un-arousable]). *Positive for any answer other than "alert".*

Sensitivity: 94%-100%; Specificity: 90%-95%

Ref: Inouye, SK et al Annals Int Med 1990;113:941-48

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IQCODE

		1	2	3	4	5
1	Remembering things about family and friends, eg occupations, birthdays, addresses	Much improved	A bit improved	Not much change	A bit worse	Much worse
2	Remembering things that have happened recently	Much improved	A bit improved	Not much change	A bit worse	Much worse
3	Recalling conversations a few days later	Much improved	A bit improved	Not much change	A bit worse	Much worse
4	Remembering her/his address and telephone number	Much improved	A bit improved	Not much change	A bit worse	Much worse
5	Remembering what day and month it is	Much improved	A bit improved	Not much change	A bit worse	Much worse
6	Remembering where things are usually kept	Much improved	A bit improved	Not much change	A bit worse	Much worse
7	Remembering where to find things which have been put in a different place from usual	Much improved	A bit improved	Not much change	A bit worse	Much worse
8	Knowing how to work familiar machines around the house	Much improved	A bit improved	Not much change	A bit worse	Much worse
9	Learning to use a new gadget or machine around the house	Much improved	A bit improved	Not much change	A bit worse	Much worse
10	Learning new things in general	Much improved	A bit improved	Not much change	A bit worse	Much worse
11	Following a story in a book or on TV	Much improved	A bit improved	Not much change	A bit worse	Much worse
12	Making decisions on everyday matters	Much improved	A bit improved	Not much change	A bit worse	Much worse
13	Handling money for shopping	Much improved	A bit improved	Not much change	A bit worse	Much worse
14	Handling financial matters, eg the pension, dealing with the bank	Much improved	A bit improved	Not much change	A bit worse	Much worse
15	Handling other everyday arithmetic problems, eg knowing how much food to buy, knowing how long between visits from family or friends	Much improved	A bit improved	Not much change	A bit worse	Much worse
16	Using his/her intelligence to understand what's going on and to reason things through	Much improved	A bit improved	Not much change	A bit worse	Much worse

Referral

Please, please, please include..



- Contact details for the relative/carer
- Whether referral has been discussed with the patient
- Brief history
- Medical history
- Any on going specialist reviews
- Current medications
- Allergies
- Any recent investigations, results
- Any thoughts on possible causes of cognitive impairment

Referral Form on
BEST website/Emis /System 1

Barnsley Dementia Service

Barnsley Dementia Service provides a single point of access for all patients with suspected dementia.

All referrals should be sent to

Dementia Services, Oaks Building, Kendray Hospital, Doncaster Road, Barnsley. S70 3RD.

Tel: 01226 644250 Fax: 01226 241063

PATIENT DETAILS	GP DETAILS
Name: MOUSE, Mickey (Mr)	Name:
Address: 1 Disney Land Street, Barnsley Postcode:	Practice Address: Woodland Drive Medical Centre, Woodland Drive, Barnsley, South Yorkshire, S70 6QW Postcode: S70 6QW Practice Code: C85006
Home Tel:	Telephone: 01226 282535
Mobile Tel:	Fax: 01226 241448
D.O.B: 29-May-1989	Registered Practice (if different):
NHS Number:	
Gender: Male	

HISTORY AND EXAMINATION

Last Consult re: memory problem
Consultations

Date	Consultation Text		
15-May-2017	GP Surgery (Woodland Drive Medical Centre) CARTER, Coleen (Mrs)		
Problem	Memory loss symptom (<i>First</i>)		
History	forgetfulness - always		
	inappropriate clothing		
	lives alone		

Gender: Male

HISTORY AND EXAMINATION

Last Consult re: memory problem

Consultations

Date	Consultation Text		
15-May-2017	GP Surgery (Woodland Drive Medical Centre) CARTER, Coleen (Mrs)		
Problem	Memory loss symptom (First)		
History	forgetfulness - always		
	inappropriate clothing		
	lives alone		
	family concerned		
Comment	refer memory service		

How long has there been concern?

<12 months >12 months

If < 12months then how long?

Progression?

Gradual Stepwise Rapid

History of depression?

Yes No

Current depression?

Name:

Date of birth:

Barnsley Dementia Services Referral Form – August 2013

Page 1 of 4

Yes No

Psychiatric history

Yes No

If yes then detail:

Alcohol/substance misuse (present/past)?

Yes No

Present Alcohol consumption

Alcohol Consumption

Date	Description	Value	Units
08-Jan-2014	Alcohol consumption	0	U/week

Past Significant Medical History 1

Epilepsy?

Yes No

Strokes?

Yes No

Head injury?

Yes No

Past Significant Medical Hx

Problems

Active

Date	Problem	Associated Text	Date Ended
15-May-2017	Memory loss symptom		
08-May-2017	Irritable bowel syndrome		
10-Mar-2017	Adverse reaction to trimethoprim		
11-Jun-2015	Prescription of palliative care anticipatory medication		
02-Jan-2014	Asthma		

Past Significant Medical Hx**Problems*****Active***

Date	Problem	Associated Text	Date Ended
15-May-2017	Memory loss symptom		
08-May-2017	Irritable bowel syndrome		
10-Mar-2017	Adverse reaction to trimethoprim		
11-Jun-2015	Prescription of palliative care anticipatory medication		
02-Jan-2014	Asthma		

Significant Past

Date	Problem	Associated Text	Date Ended
------	---------	-----------------	------------

Family History

Is there a family history of dementia?

Yes No

If Yes detail:

Current medications & allergies**Acute Medication*****Acute***

Drug	Dosage	Quantity	Last Issued On
Influenza vaccine (split virion, inactivated) suspension for injection 0.5ml pre-filled syringes	For Intramuscular Injection	1 pre-filled disposable injection	
Influenza vaccine (split virion, inactivated) suspension for injection 0.5ml pre-filled syringes	For Intramuscular Injection	1 pre-filled disposable injection	
Influenza vaccine (split virion, inactivated) suspension for injection 0.5ml pre-filled syringes	For Intramuscular Injection	1 pre-filled disposable injection	

Physical Examination

BP

10-Feb-2014 : 70 mmHg

BMI

08-Jan-2014 : 25.7 kg/m²

Height

08-Jan-2014 : 165 cm

Weight

08-Jan-2014 : 70 kg

Dementia screening test Results

6 CIT (see BEST website)

No events found.

Blood results

FBC,

ESR,

B12

Folate,

TFT's,

U&E,

Ca²⁺

LFT's

glucose

HbA1C

Name:

Date of birth:

Barnsley Dementia Services Referral Form – August 2013

lipid profile/cholesterol

Additional information about family members/friends contact details

*(i.e. further information from family member / friend / carer / practice staff, vulnerability, any other stresses)
information on Patient Alerts in notes*

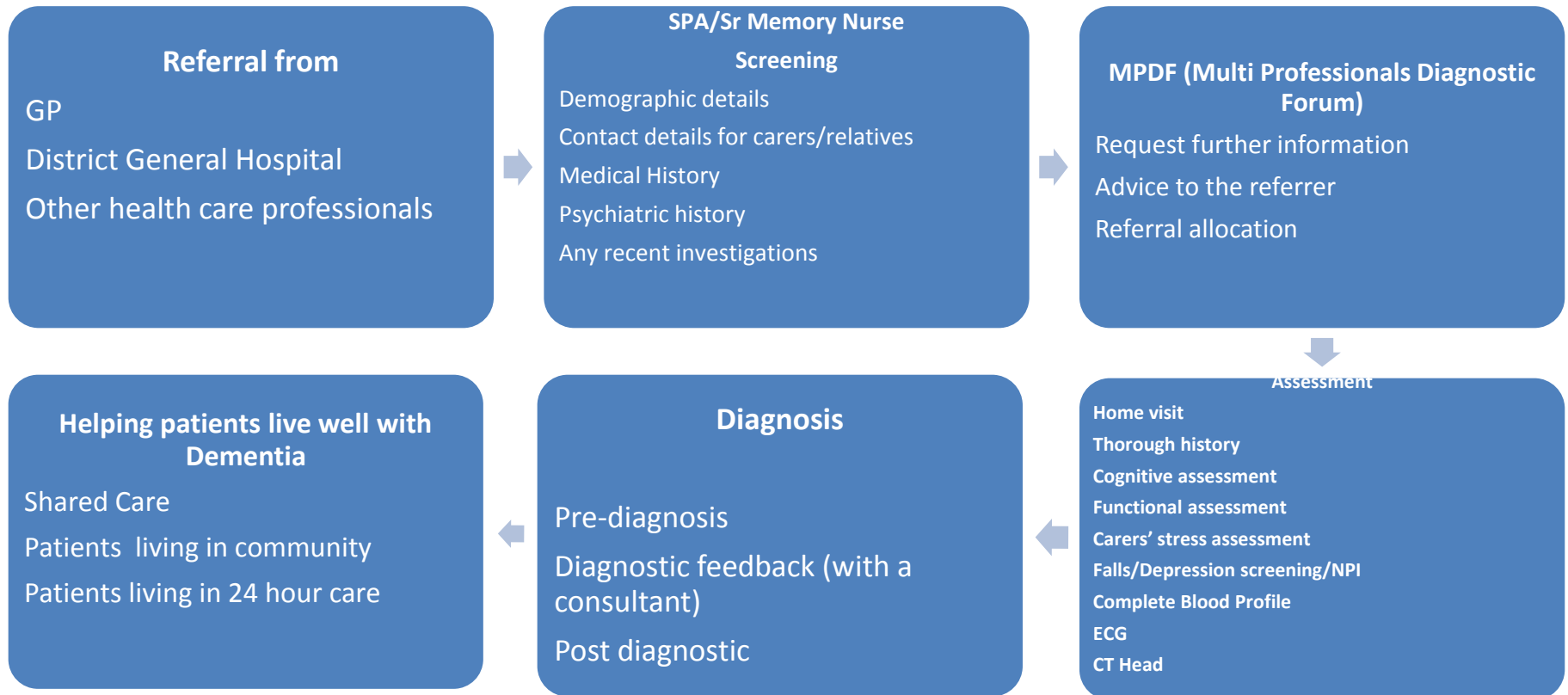
Are there any concerns/risks to health, safety, welfare, vulnerability of the patient?

Does the patient consent to the referral?

Yes No

|

Dementia Pathway



What do we share with you?

- Any significant risks/concerns by the family
- Diagnosis/Formulation
- Management plan:
 - Cognitive enhancers
 - Support systems
 - Psycho-education
 - Post diagnostic
- Cognitive enhancers
 - Titration
 - Stabilisation
 - Monitoring



Shared Care

What do we share with you?

Diagnosis / Formulation	
ICD Code	
GP Read Code	
Medications	
Allergy Status	

What do we share with you?

<u>S.No</u>	Test / Investigation	Results		Date
1	ACE/R <i>(Cut-off < 82 gives 84% sensitivity and 100% specificity)</i>	Total Score	/100	
		Attention & Orientation	/18	
		Memory	/26	
		Fluency	/14	
		Language	/26	
	<u>Visuospatial</u>	/16		
	MMSE	/30		
2	CT Scan			
3	Blood Parameters	<u>Heamatology</u>		
		Biochemistry		
		B12, <u>Folate</u>		
4	ECG			
5	BADL's (Activities of Daily Living Score) <i>(The higher the score the greater the impairment)</i>			
6	Relative Stress Scale <i>(The higher the score the greater the stress)</i>			

Diagnosis in Primary Care by GPs

Nice Guidance

- Treatment should be under the following conditions:
- Prescribers should only start treatment with donepezil, galantamine, rivastigmine or memantine on the advice of a clinician who has the necessary knowledge and skills. This could include:
 - secondary care medical specialists such as psychiatrists, geriatricians and neurologists
 - other healthcare professionals such as GPs, nurse consultants and advanced nurse practitioners with specialist expertise in diagnosing and treating Alzheimer's disease. **[new 2016]**

A diagnosis of dementia is usually made within memory services. Some care home residents with advanced dementia have never had a formal diagnosis. In these cases a referral to memory services is rarely desirable. It is likely to be distressing for the individual and is usually unnecessary¹.

People with advanced dementia, their families and staff caring for them, still benefit from a formal diagnosis. It enables access to appropriate care to meet individual needs and prompts staff to consider MCA and DOLs issues where appropriate. A diagnosis of dementia can be made with a high degree of certainty if all five criteria listed below are met:

1 Functional impairment

The person is no longer fully independent in relation to basic activities of daily living, washing, dressing, feeding and attending to own continence needs. The requirement of prompting or supervision of staff constitutes a loss of full independence.

2 Cognitive impairment – 6 CIT assessment

Question	Scoring	Score achieved
1.What year is it?	Correct – 0 points, incorrect – 4 points	
2.What month is it?	Correct – 0 points; Incorrect – 3 points	
3.Give an address phrase to remember with 5 components e.g. John, Smith, 42, High St, Wakefield		
4.About what time is it (within 1 hour)	Correct – 0 points; Incorrect – 3 points	
5.Count backwards from 20-1	No errors – 0 points; 1 error – 2 points; more than 1 error – 4 points	
6.Say the months of the year in reverse	No errors – 0 points; 1 error – 2 points; more than 1 error – 4 points	
7.Repeat address phase	No errors – 0 points; score 2 points for every component wrong e.g. 3 errors, 6 points	
TOTAL SCORE:		

6 CIT scores: 7 and below normal; 8 and above indicate impairment.

Assessment tools other than 6CIT can be used. If used does score indicate impairment Y/N?

NB. Scores obtained in this patient group would be expected to be at the severe end of scale and for some patients their cognitive impairment will be of such severity that they cannot undertake the assessment.

Y / N

3 Corroborating History

History of gradual cognitive decline (typically for the last few years) is confirmed by care staff, relatives and medical records. Staff/relatives confirm that in their opinion the patient consistently demonstrates both functional and cognitive impairment.

4 Investigations

Dementia screening **bloods are normal** (where clinically appropriate and patient consents to bloods). If patient lacks capacity to consent to bloods, a best interest decision must be made and documented accordingly. NB. If intracranial pathology (e.g. subdural haematoma, cerebral tumour) is suspected, referral for a brain scan may be appropriate. Otherwise where dementia is advanced, differential diagnosis is unlikely to affect patient management & a brain scan is unnecessary.

5 Exclusion Criteria

There is **no acute underlying cause to explain** confusion i.e. delirium (acute confusional state) has been excluded. Mood disorder or psychosis is also excluded.

Mary has been diagnosed with Alzheimer's dementia and has been titrated on to Donepezil 10 mg a day.










She has been stable on this medication for 3 months and a shared care has now been requested.

When to request a shared care?

- ▶ The patient meets the clinical criteria within NICE guidance (TA217) for the use of acetylcholinesterase inhibitors and Memantine
- ▶ Medication has been shown to be beneficial
- ▶ **Patient's dosage has been stabilised.**
- ▶ Patient's condition is amenable to a shared care arrangement.
- ▶ Suitable arrangements have been made for shared care
- ▶ **GP has agreed to accept the prescribing and management responsibility**

Clinical support by type

 Anatomy	 Diagnostic tools	 Local pathways and guidelines
 National guidelines and pathways	 Medicines information	 Referral criteria and investigation forms
Prescribing guidelines	Shared care guidelines	Drug monitoring
 Services	 Patient information sheets	 Useful websites and e-Learning

- Dermatology (2)
- Diabetes (5)
- Endocrine (7)
- Gastroenterology (5)
- General (1)
- Haematology (1)
- Hepatology (3)
- Lipids (1)
- Men's health (3)
- Mental health (13)
- MSK (musculoskeletal) (5)
- Neurology (10)
- Paediatrics (2)
- Pain management (1)
- Palliative care (1)
- Renal (1)
- Respiratory (1)
- Rheumatology (4)
- Substance misuse (4)

Conditions and indicators

- Autoimmune hepatitis (1)

Abasaglar



Acamprosate



ADHD (Methylphenidate, Dexamfetamine, Atomoxetine and Lisdexamphetamine)



Alzheimers (Donepezil, Galantamine, Rivastigmine, Memantine)



Amiodarone



Amisulpride



Contact numbers

Diagnostic tools

Prescribing guidelines

Patient information sheets

Investigation/referrals

Useful websites

Home

Education and events

Relaxation

Medicines

[Home](#) ← [Clinical support](#) ← [Shared care guidelines](#) ← Alzheimers (Donepezil, Galantamine, Rivastigmine, Memantine)

Alzheimers (Donepezil, Galantamine, Rivastigmine, Memantine) shared care guideline

Date: 30 October 2015 to 08 January 2020

Time: 13:42



Cancer, Palliative Care, Pain and Older People



Brain and mental health

Traffic light

Amber with shared care funded by

Key documents

- [Dementia - acetylcholinesterase inhibitors](#)

care.



Donepezil, Galantamine, Rivastigmine and Memantine Shared Care Guideline for Dementia

Introduction

Indication/Licensing information (NICE Guidance TAG 217¹)

The three acetylcholinesterase (AChE) inhibitors **donepezil, galantamine and rivastigmine** are recommended as options for managing mild to moderate Alzheimer's disease. **Rivastigmine** is also licensed for Lewy Body and Parkinson's Dementia

Memantine is recommended as an option for managing Alzheimer's disease for people with:

- Moderate Alzheimer's disease who are intolerant of or have a contraindication to AChE inhibitors
- Severe Alzheimer's disease.

Treatment should be under the following conditions:

Only specialists in the care of patients with dementia (that is, psychiatrists including those specialising in

Anti Dementia Medication

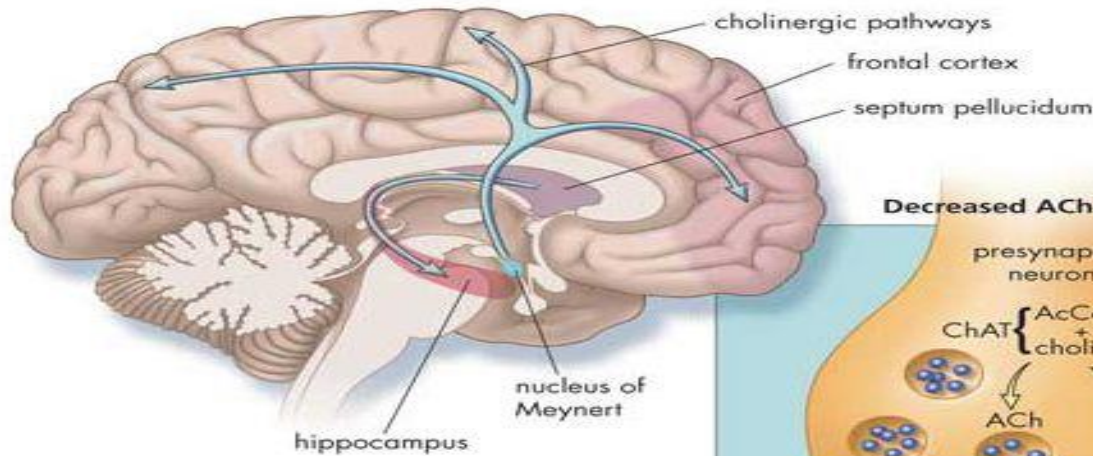


What drugs?

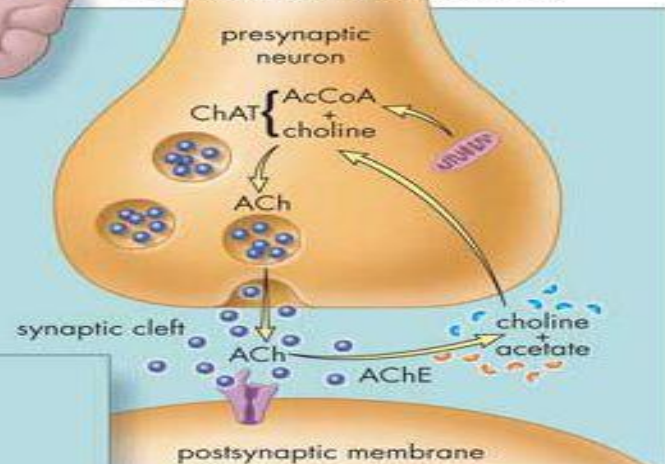
Table 1 Licensed indications for cholinesterase inhibitors and memantine in the UK

	Donepezil	Rivastigmine	Galantamine	Memantine
Mild Alzheimer's disease	Yes	Yes	Yes	No
Moderate Alzheimer's disease	Yes	Yes	Yes	Yes
Severe Alzheimer's disease:				
UK	No	No	No	Yes
(US)	(Yes)	(No)	(No)	(Yes)
Mild to moderate Parkinson's disease dementia	No	Yes	No	No
Vascular dementia	No	No	No	No
Mild cognitive impairment	No	No	No	No
Dementia with Lewy bodies	No	Yes	No	No
Frontotemporal dementia	No	No	No	No

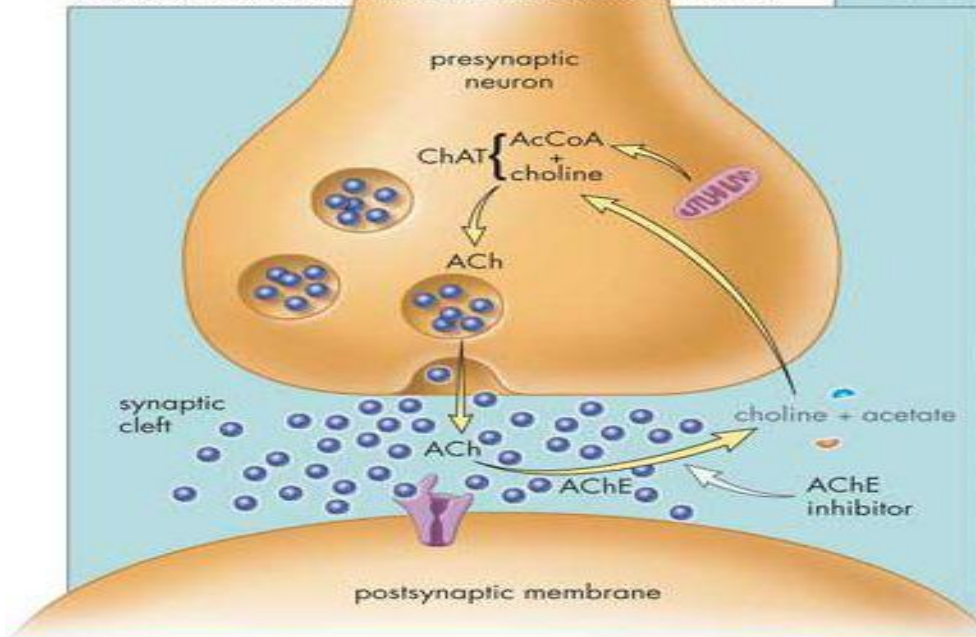
AChI – How do they work?



Decreased ACh levels with AD



Increased ACh levels with cholinesterase inhibitor

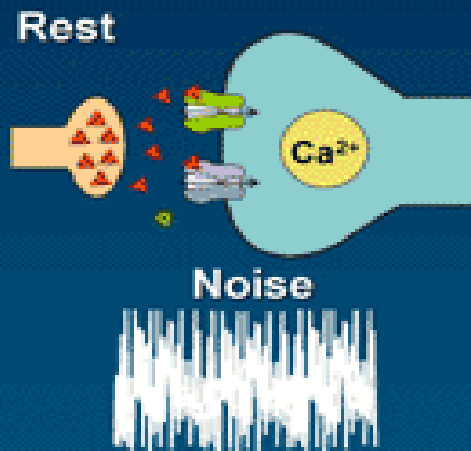


Levels of acetylcholine (ACh), the chemical messenger important for learning and memory, are low in the brains of people with Alzheimer's disease. Cholinesterase inhibitors (AChE inhibitors) partially correct the deficit by blocking the action of acetylcholinesterase (AChE) and thereby increasing the amount of acetylcholine that remains in the synaptic cleft.

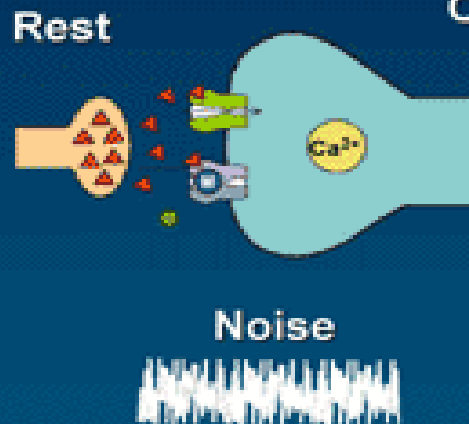
Memantine – How does it work?

Memantine Selectively Blocks Pathological Activation of NMDA Receptors

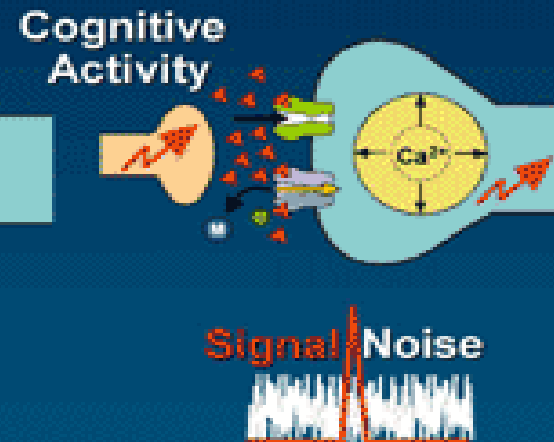
Pathological Activation of NMDA Receptors



Neuroprotection by Memantine



Memantine Does Not Impair Neurotransmission or Plastic Processes



- ▲ Glutamate
- Magnesium
- Ⓜ Memantine

What evidence?

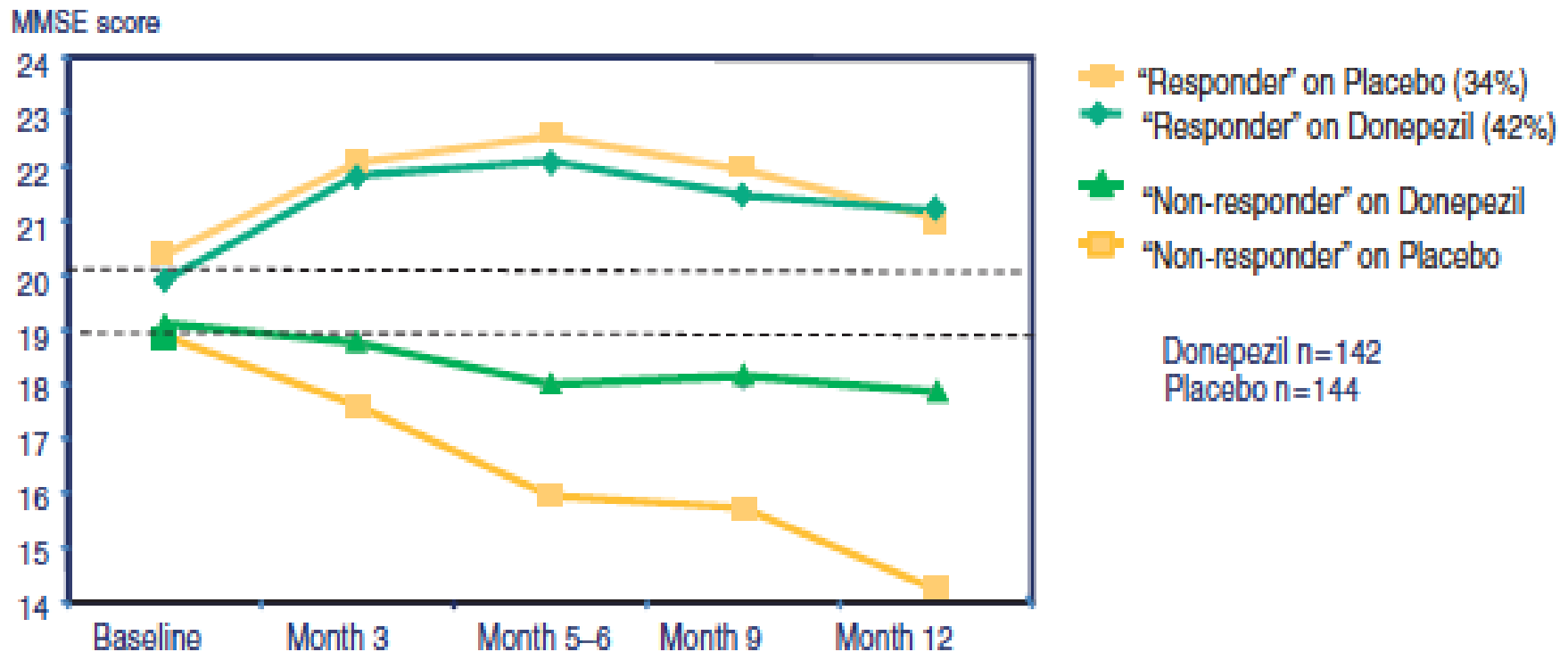
Mild to Moderate Alzheimer's Dementia

Donepezil vs Placebo	Rivastigmine vs Placebo	Galantamine vs Placebo
12 RCT's - Statistically significant difference in cognition (ADAS-Cog, SIB, MMSE) @ 12 and 24 weeks	3 New studies - Pooled data showed statistically significant benefit in ADAS -Cog score	10 trials, statistically significant benefit, increased with time from 6 to 26 weeks (ADAS Cog)
3 RCTS - Improvement in NPI Scores 1 RCT - Agitation and aggression	2/3 new studies - Significant functional improvement (26 weeks)	1 study - Significant benefit in NPI scores (Industry sponsored)
Meta analysis of 10 trials - Significant improvement in Global functioning	9.5mg/24 hrs produced fewer side effects than the capsules	
Cognitive benefits are maintained for up to 3 years		
17.5 months time delay before institutionalisation		

Longer term drug effect

Predicting responders:
using the responder analysis from 1st NICE guidance

Responders and non-responders in a 1-year trial of donepezil versus placebo



Winblad et al. Neurology 2001; 57: 489-496

Measuring clinical worsening

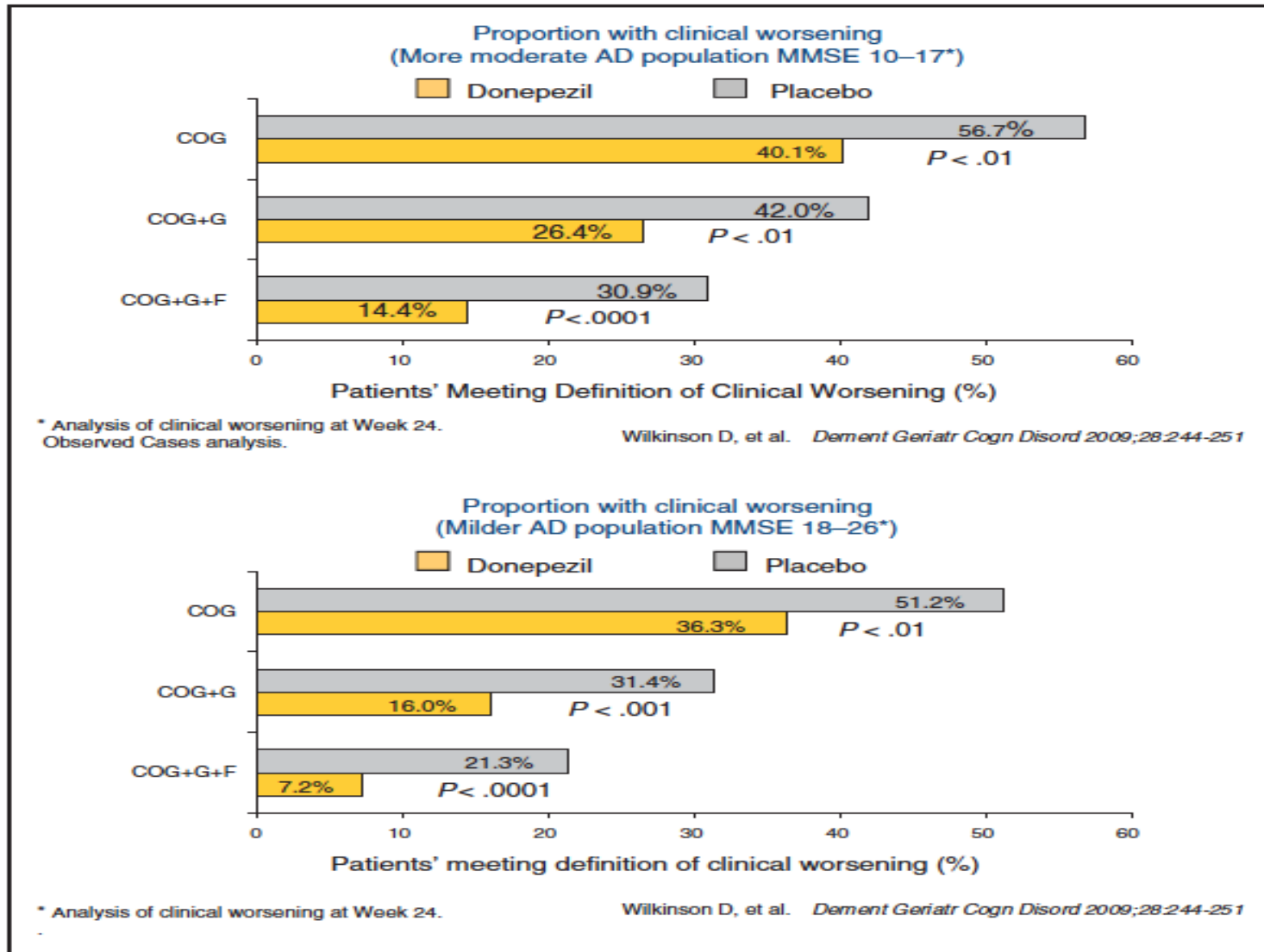
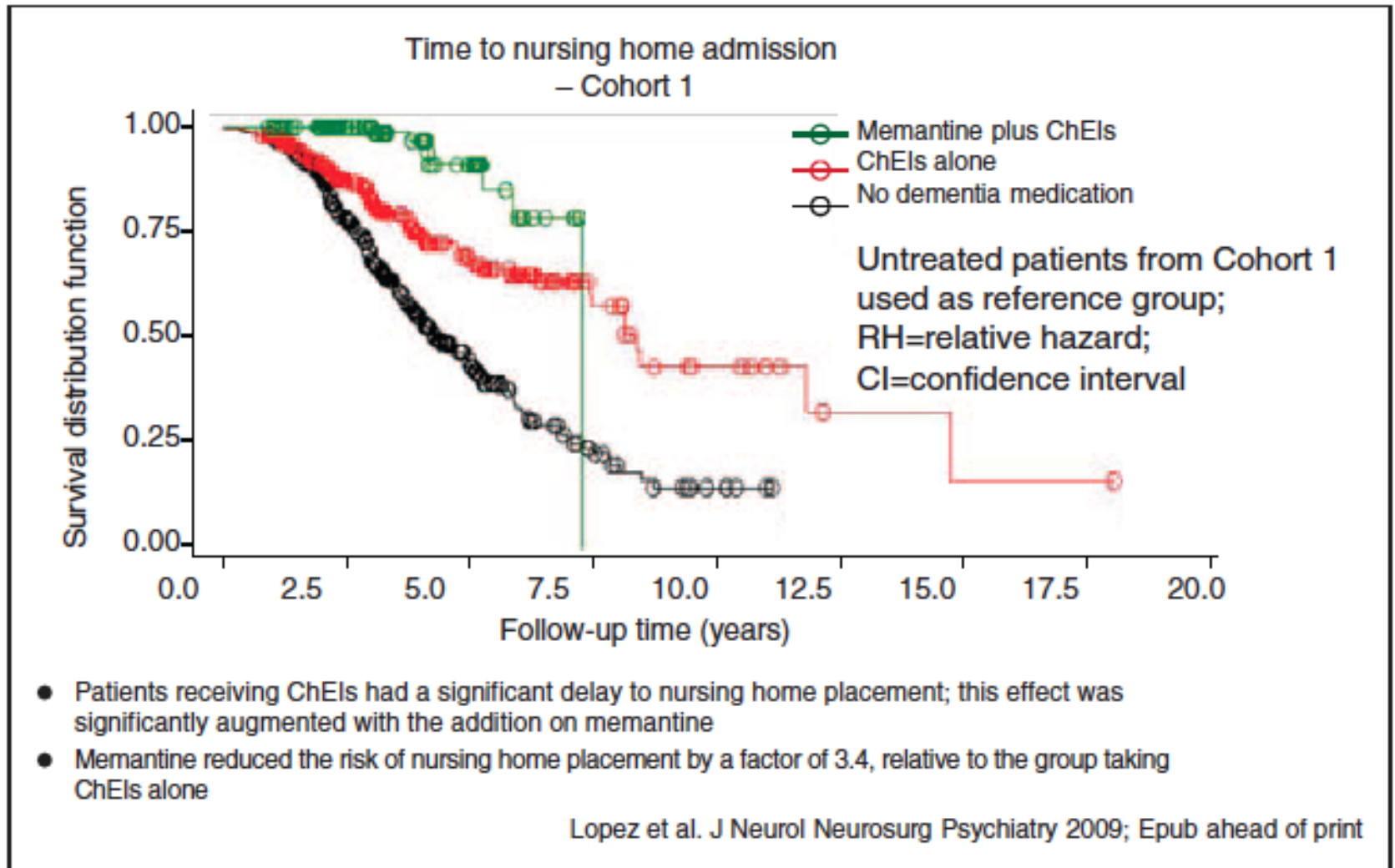


Figure 1. Patients declining according to the NICE definition of response at 3 months showed much less MMSE decline on donepezil compared with placebo, demonstrating a clear drug effect.

Time to nursing home admission



How safe are these medications?

- 2006 Cochrane review AChI's in AD - patients in treatment arms were more likely than those in placebo arms to report a single adverse event
- Number need to harm - 7
- Donepezil was associated with fewer adverse events than the other cholinesterase inhibitors.
- Meta-analysis of trials of AChI's and memantine - AChI's were associated with an increased risk of syncope (odds ratio 1.53 (95% confidence interval 1.02 to 2.30) but not falls.
- Number needed to harm - 143

How safe are these medications?

- ▶ Memantine is associated with fewer and less serious side effects than AChI's
- ▶ Adverse effects of cholinesterase inhibitors arise from increased vagal tone.
 - ▶ Caution - sick sinus syndrome and atrioventricular block
 - ▶ Caution - COPD or asthma, urinary problems, history of peptic ulcer.
- ▶ A comprehensive review of the available data on cardiovascular adverse events concluded that **serious events were rare.**

Discharging patients from MASS

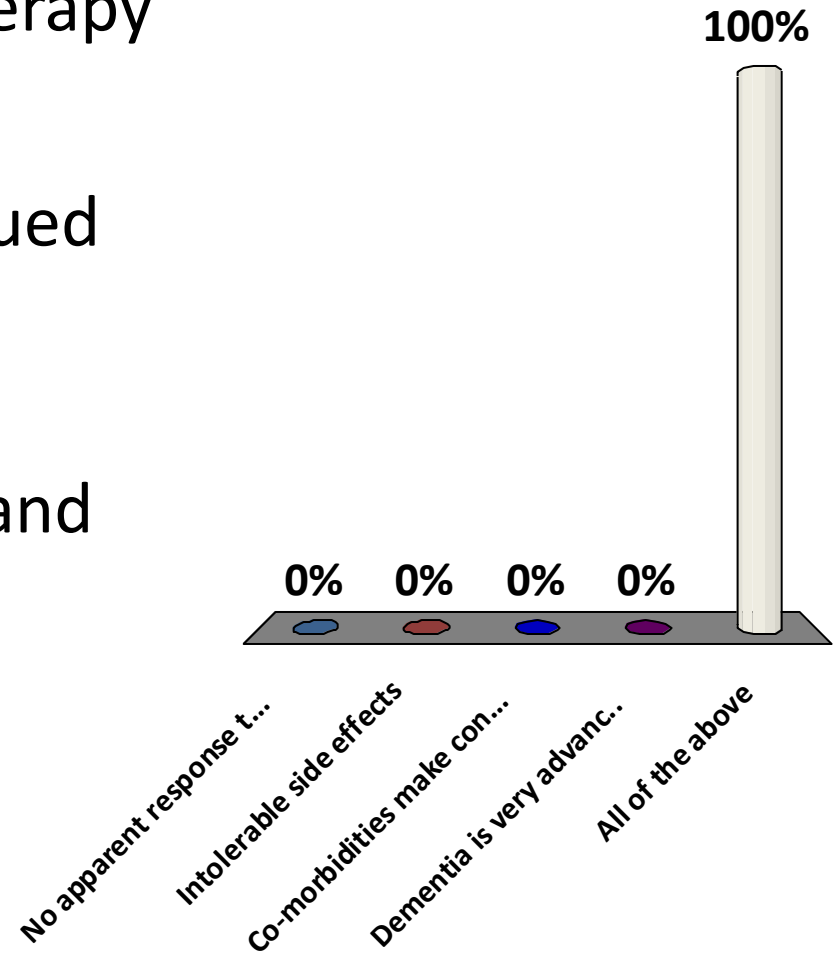
- Patients are to be discharged from the service after 6 months of being stable on cognitive enhancers.
- Reviews by GP as part of the annual health reviews
- What to look for
 - General feedback from patient/family on cognitive and global decline
 - Any BPSDs – Refer to memory clinic (Rapid access clinics)
 - Risks – wandering, self neglect
 - When to stop the medications

Mrs Mary Smith's journey

Mary comes to back to annual health reviews and the feedback suggests a significant decline and the family members request if the medications could be reviewed and if Donepezil could be stopped.

When do you discontinue cognitive enhancers?

- A. No apparent response to therapy
- B. Intolerable side effects
- C. Co-morbidities make continued use too risky or futile (eg, terminal illness)
- D. Dementia is very advanced and terminal care is appropriate
- E. All of the above



Discontinuation of Cognitive Enhancers

- Patient and/or proxy decision-maker decide to stop
- Patient refuses medication or non-adherence is an insurmountable problem
- No apparent response to therapy
 - Note that this is difficult to judge in practice; evidence shows that patients on treatment do better than those on no treatment, even in some with severe AD
- Intolerable side effects
- Co-morbidities make continued use too risky or futile (eg, terminal illness)
- Dementia is very advanced and terminal care is appropriate
- Withdraw treatment slowly and consider reinstating if deterioration occurs.

Mrs Mary Smith's Journey

- Mary continues to decline with her global functioning and she no longer is able to manage her ADLs and family are concerned about her capacity to manage her finances. They come to see you if she is capable of executing a Power of Attorney for finances.
- Does she have the capacity to sign a power of attorney document?

Capacity for Power of Attorney

- Diagnostic threshold
- Functional assessment
 - Understand, retain, weigh the pros and cons, communicate
- What is the relevant information you discuss?
 - Nature and scope of POA
 - Why She has chosen those attorneys
 - Extent of her affairs, financial responsibilities, contingencies

BPSDs

(Behavioral and Psychological Symptoms of Dementia)



BPSDs

- Around 90% of dementia patients experience BPSDs
- Shouting, screaming, agitation, aggression, disinhibition, delusions, hallucinations etc
- Independently associated with
 - poor outcomes
 - distress among patients and caregivers
 - long-term hospitalization
 - misuse of medication
 - increased health care costs
- Evidence base for effective control of BPSDs is poor

Mrs Mary Smith's journey

Mary was found wandering outside her home and she was admitted to a care home. The care home staff request a review by GP as they are getting increasingly concerned about Mary's behaviours.

How do you approach?

- P – Pain
- I - Infections
- N – Nutritional status
- C – Constipation
- H – Hydration, check U&E
- M – Medications
- E – Environment



How do you approach?

- **RISK ASSESSMENT – self and others**
- **Understand the behaviours**
 - Behavior charts – Request the carers to maintain
 - Behavioral analysis – ABC (Antecedent, Behaviour, Consequence)
 - Explore any triggers, timings, patterns
 - Glass half full! – What has worked?
- **Refer to Care Home Liaison team (MASS)**
- **Role of medication**
 - Not first line
 - SSRI/Trazodone/Benzos/Memantine/Antipsychotic

Antipsychotics in Dementia



Some numbers!

Treating 1,000 people with BPSD for 12 weeks would result in

- an additional 91–200 patients with behavioural disturbance (or an additional 72 patients of 1,000 with psychosis) showing clinically significant improvement in these symptoms
- an additional 10 deaths
- an additional 18 CVAEs, around half of which may be severe
- no additional falls or fractures
- additional 58-94 patients with gait disturbance

The process!



Where medication is considered

- The person should be as involved as possible in decision-making
- In all cases family carer should be involved in discussions
- Information on the possible positive and negative effects of the medication
- A ‘best interests’ decision
- Atypical antipsychotic is to be preferred over a typical (Risperidone)

The Process !

- If prescribed **PLEASE LET US KNOW asap**
- Advice adequate fluid intake, mobility, emphasize secondary prevention i.e blood thinners etc
- Advice the carers to look for any evidence of strokes
- Risk is highest in the first few weeks
- **DOCUMENT, DOCUMENT, DOCUMENT..**
 - ✦ Target symptoms
 - ✦ Plans for further review
 - ✦ Discussions with family
- Attempt to reduce at the earliest opportunity (less than 12 weeks)

Acknowledgements

- **Cambridge Dementia Course** – Some of the contents of this talk are borrowed from this course

