

S92 CLINICAL A86G
M31 RECORD SM1B
LB6 INTERACTIVE
5C0 SEARCH RS90M



National Institute for
Health Research

Disentangling complex conditions

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Dementia research in CRIS

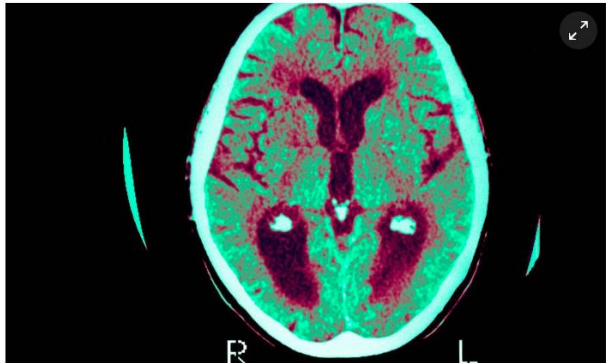
Dr Christoph Mueller, Academic Clinical Lecturer

Department of Old Age Psychiatry, IoPPN, King's College London

Alzheimer's

Dementia and Alzheimer's leading cause of death in England and Wales

Ageing population and better diagnosis have led to heart disease being knocked off top spot for first time, ONS says

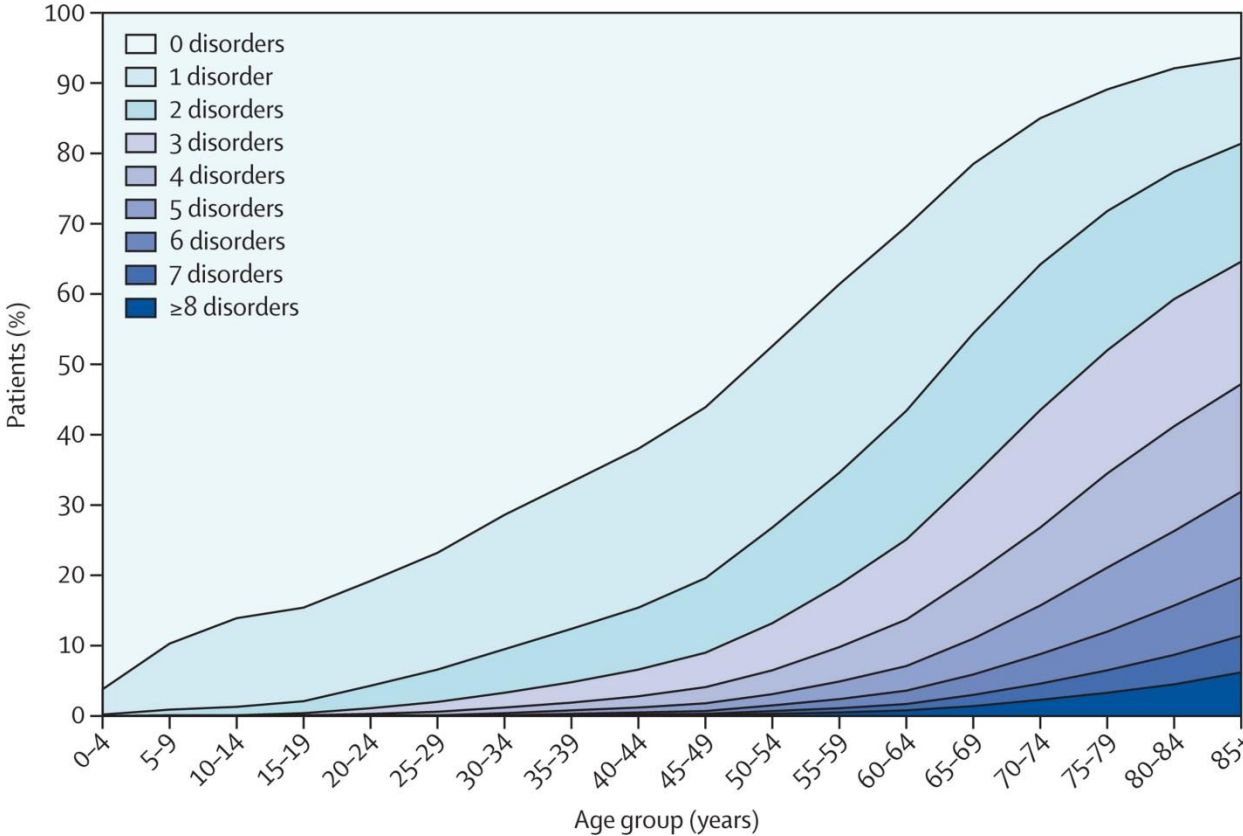


Scan of a person with Alzheimer's disease. The ONS said 11.6% of deaths in England and Wales in 2015 were attributable to Alzheimer's or dementia. Photograph: Alamy Stock Photo

Dementia on the rise

Estimates of the rapidly growing number of people with dementia worldwide





Barnett et al., 2012, Lancet

Underrepresentation of Elderly People in Randomised Controlled Trials. The Example of Trials of 4 Widely Prescribed Drugs

Cécile Konrat¹, Isabelle Boutron^{1,2,3,4*}, Ludovic Trinquart^{1,2,4}, Guy-Robert Auleley⁵, Philippe Ricordeau⁶, Philippe Ravaud^{1,2,3,4}

1 INSERM U738, Paris, France, **2** Assistance Publique des Hôpitaux de Paris (AP-HP), Hôpital Hôtel Dieu, Centre d'Epidémiologie Clinique, Paris, France, **3** Université Paris Descartes, Faculté de Médecine, Paris, France, **4** French Cochrane Center, Paris, France, **5** Département de la Recherche Clinique, Institut National du Cancer (INCa), Paris, France, **6** Caisse nationale d'assurance maladie des travailleurs salariés (CNAMTS), Paris, France

ORIGINAL INVESTIGATION

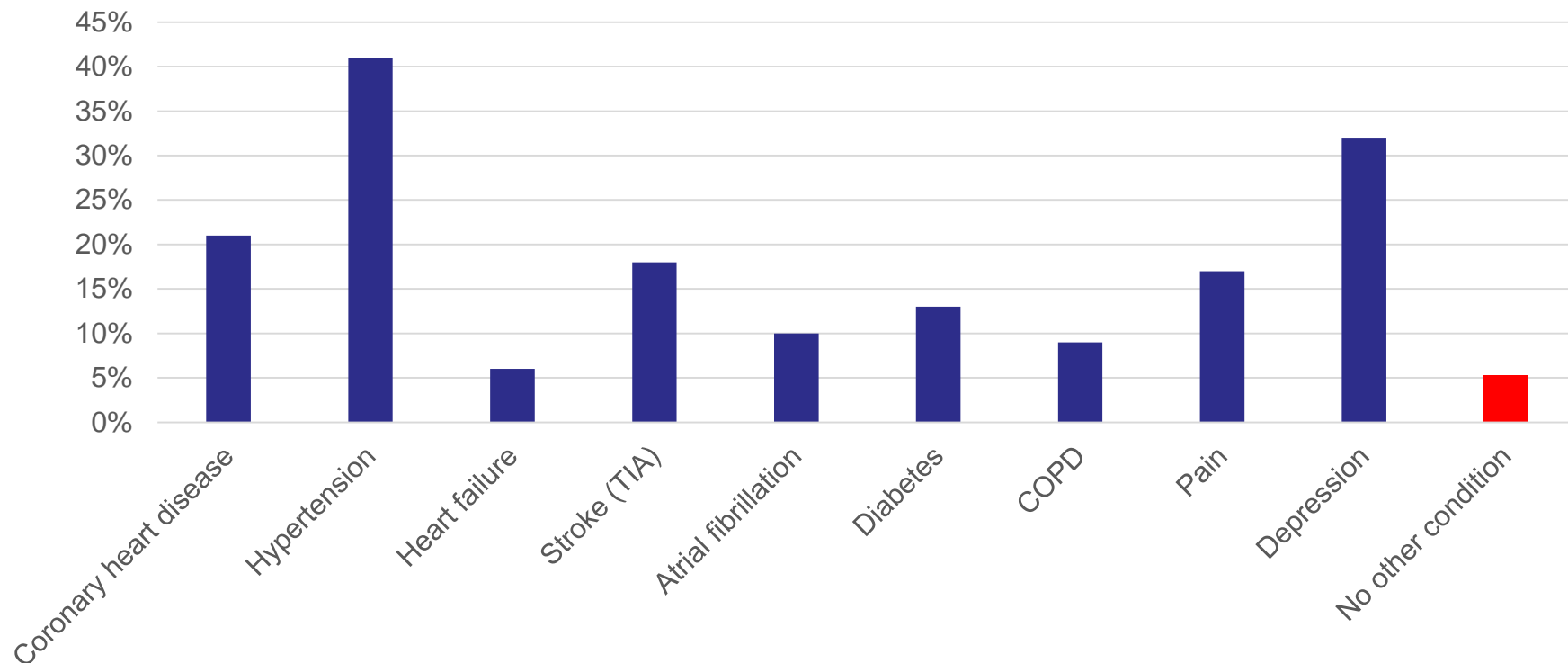
The Persistent Exclusion of Older Patients From Ongoing Clinical Trials Regarding Heart Failure

Antonio Cherubini, MD, PhD; Joaquim Oristrell, MD, PhD; Xavier Pla, MD; Carmelinda Ruggiero, MD, PhD; Roberta Ferretti, MD; Germán Diestre, MD; A. Mark Clarfield, MD, FRCPC; Peter Crome, MD, DSc; Cees Hertogh, MD, PhD; Vita Lesauskaite, MD, PhD; Gabriel-Ioan Prada, MD, PhD; Katarzyna Szczerbinska, MD, PhD; Eva Topinkova, MD, PhD; Judith Sinclair-Cohen, BSD; David Edbrooke, MD, FRCA; Gary H. Mills, MD, PhD

Exclusion of Older Adults from Ongoing Clinical Trials About Type 2 Diabetes Mellitus

Alfonso J. Cruz-Jentoft, MD, PhD, Marina Carpena-Ruiz, MD, Beatriz Montero-Errasquín, MD, Carmen Sánchez-Castellano, MD, and Elisabet Sánchez-García, MD

Percentage of co-morbid conditions in dementia



Guthrie et al., 2012, BMJ



Mini Mental State Examination



National Institute for
Health Research



	Placebo (n=712)	Risperidone (n=1009)	Haloperidol (n=115)	Total (n=1836)
Mean MMSE (SD)	9.0 (6.6)	8.3 (6.6)	8.0 (6.5)	8.5 (6.6)
Range	0-23	0-24	0-22	0-24

Howard et al., 2016, BJPsych

At death in 1400 C&I residents: Mean MMSE 15.3 (7.0)

Aworinde et al., 2018, BMC Psychiatry

At diagnosis in CRIS (n=14,093): Mean MMSE 18.6 (6.4)



Clinical Record
Interactive
Search



63%

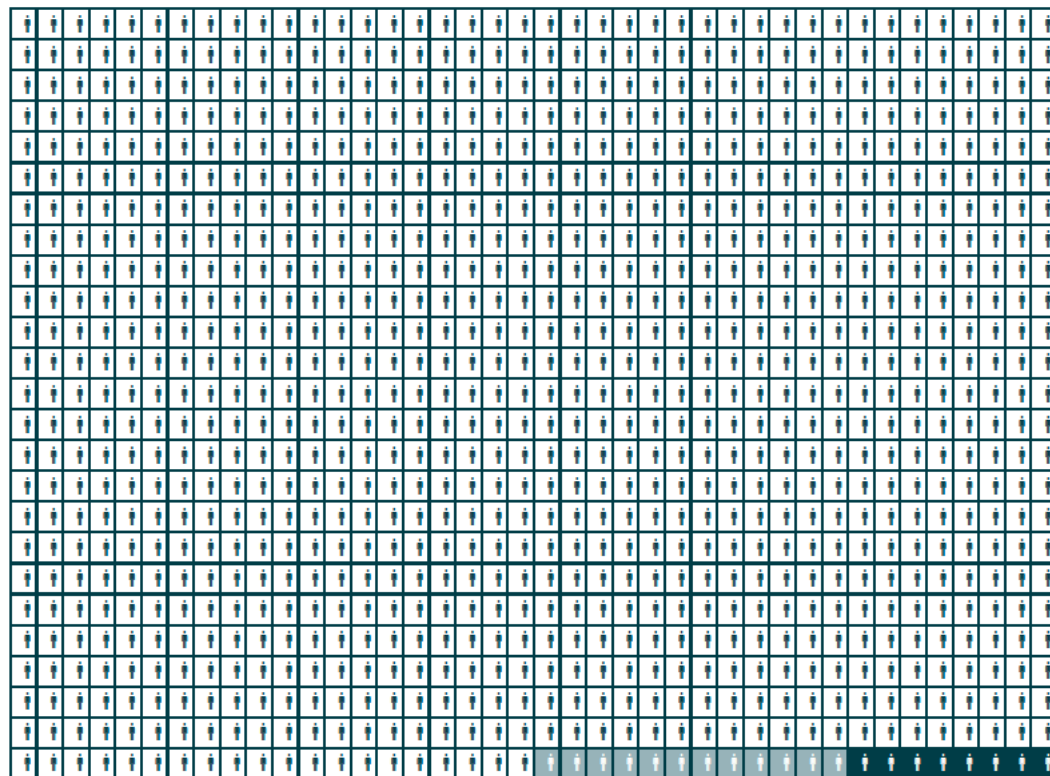


52%





Effect of antipsychotics on the risk of stroke over 6 to 12 weeks



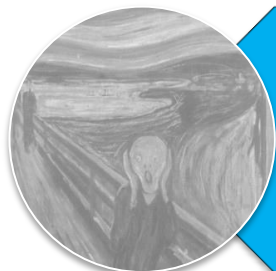
It is not possible to know in advance what will happen to any individual person.

NICE, 2018



Agitation & Psychosis (Ag+/Ps+)

HR: 0.96
(0.42-2.21)



Psychosis, but no Agitation (Ag-/Ps+)

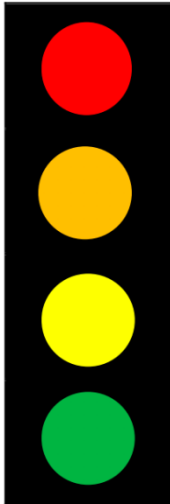
HR: 2.16
(1.09-4.25)



Agitation, but no Psychosis (Ag+/Ps-)

HR: 1.09
(0.63-1.86)

Anticholinergic effect on Cognition (AEC) scale

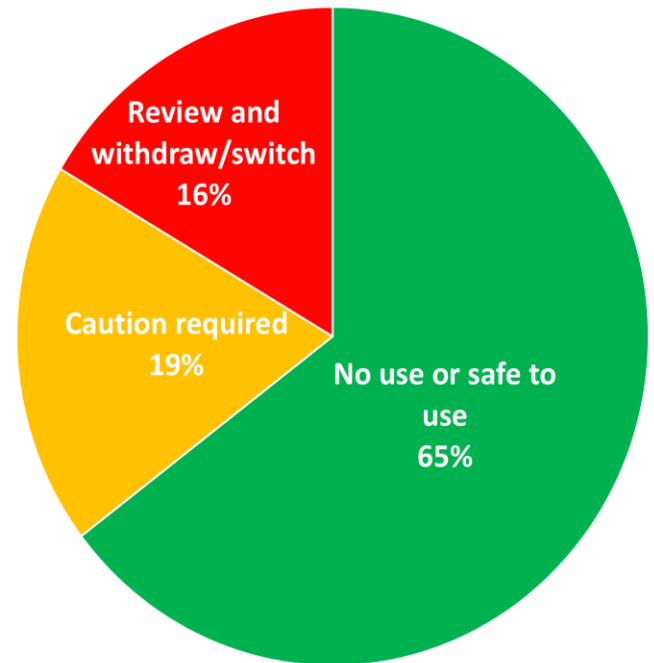


Score 3 – Review and withdraw/switch – 21 drugs

Score 2 – Review and withdraw/switch – 19 drugs

Score 1 – Caution required – 34 drugs

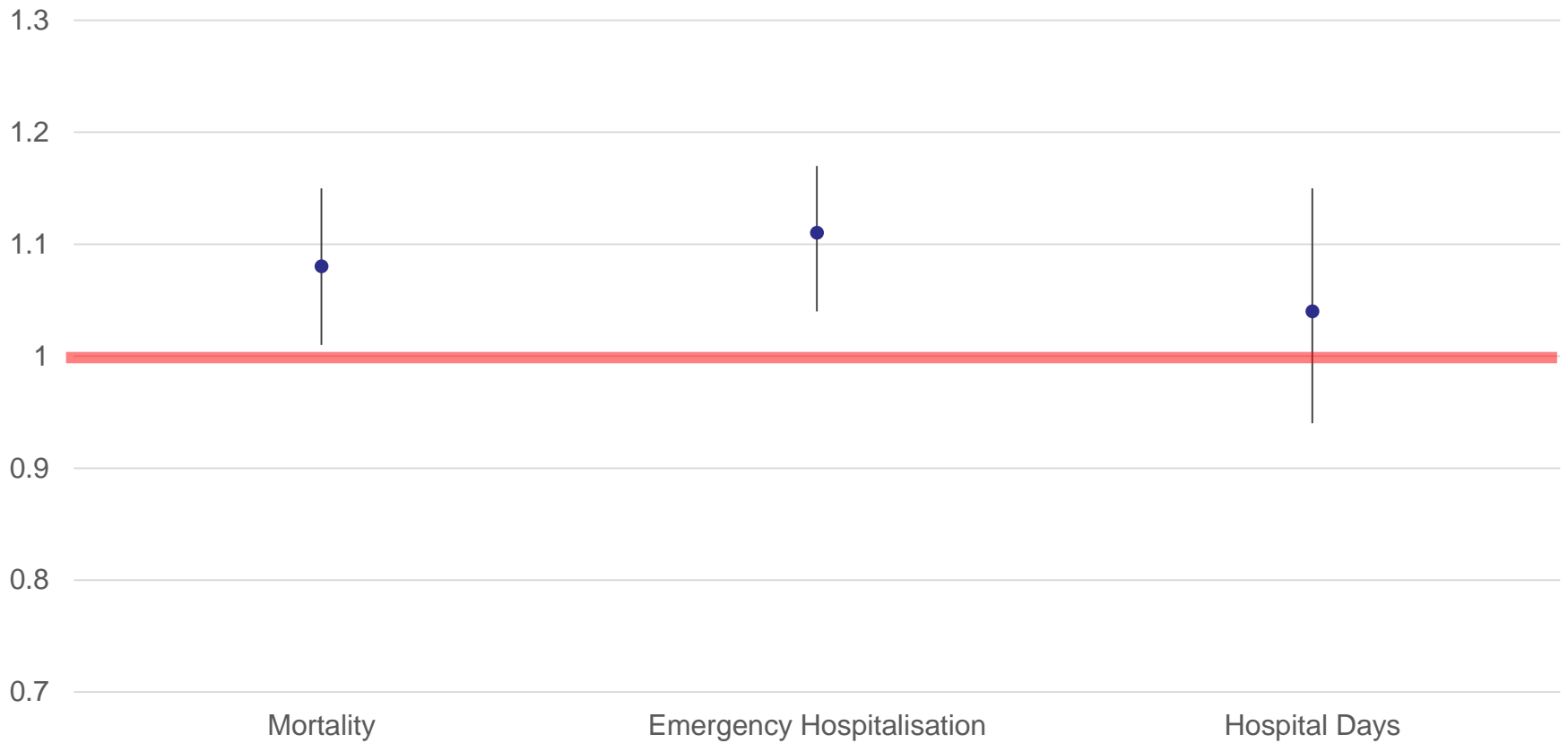
Score 0 – Safe to use – 159 drugs



Bishara et al., 2017, IJGP

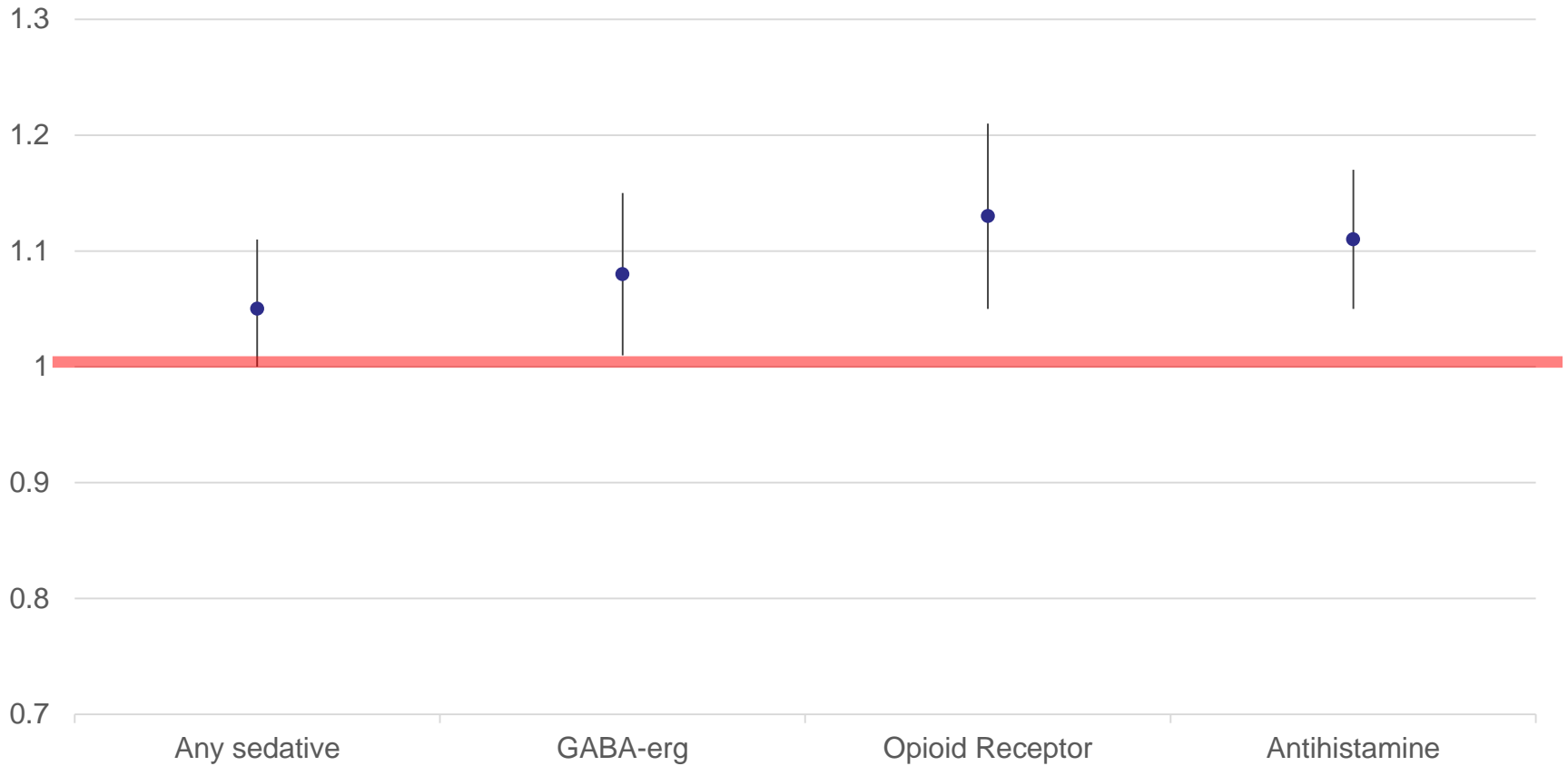
Anticholinergics

Hazard ratio



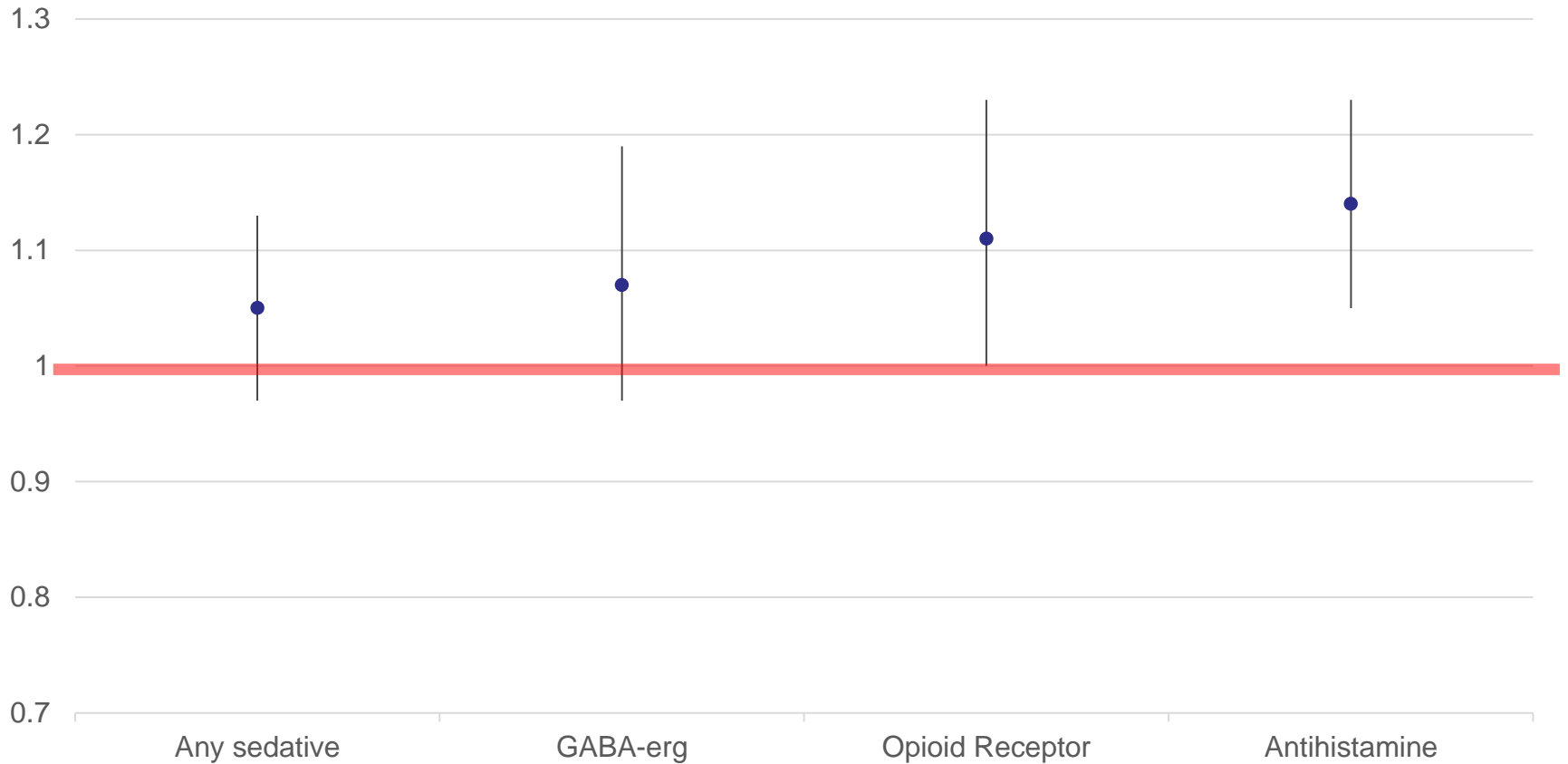
Sedatives

Mortality (HR)



Sedatives

Hospital Days (IRR)



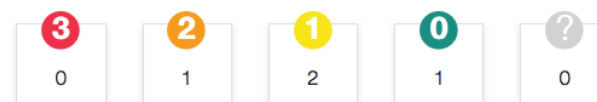


Label	Drug	Score	Dosage	
1	Aripiprazole	1	I.E. - Dosage and/or frequency	✕
1	Sertraline	1	I.E. - Dosage and/or frequency	✕
2	Tolterodine	2	I.E. - Dosage and/or frequency	✕
0	Amlodipine	0	I.E. - Dosage and/or frequency	✕

Add custom drug

INTERPRETING THE SCORE

Numbers below score badges represent total number of drugs per score category



Total AEC Score

4

- Consider reviewing all individual drugs with an AEC score of 2 or above to see whether they can either be withdrawn or switched to a drug with a lower AEC score (preferably 0).
- The individual AEC scores of drugs are added together for each patient so as to calculate the total AEC score.
- Consider carrying out a medication review for all patients with a total AEC score of 3 or above to see whether the total AEC score can be reduced to the minimum possible.
- Note that some drugs may have an AEC score of 0 but can still cause cognitive impairment through other pharmacological mechanisms.
- Note that drug dosage is not taken into account when using this scale.

The screenshot shows the BBC News website interface. At the top, there are navigation links for News, Sport, Weather, iPlayer, and Sounds. Below this is a red banner with the word 'NEWS' in white. Underneath the banner are more navigation links: Home, UK, World, Business, Politics, Tech, Science, Health, and Family & Education. The 'Health' link is underlined. The main article title is 'Experts excited by brain 'wonder-drug''. The author is James Gallagher, a health and science reporter for BBC News. The article is dated 20 April 2017. There are social media sharing icons for Facebook, Messenger, Twitter, Email, and a general 'Share' button.

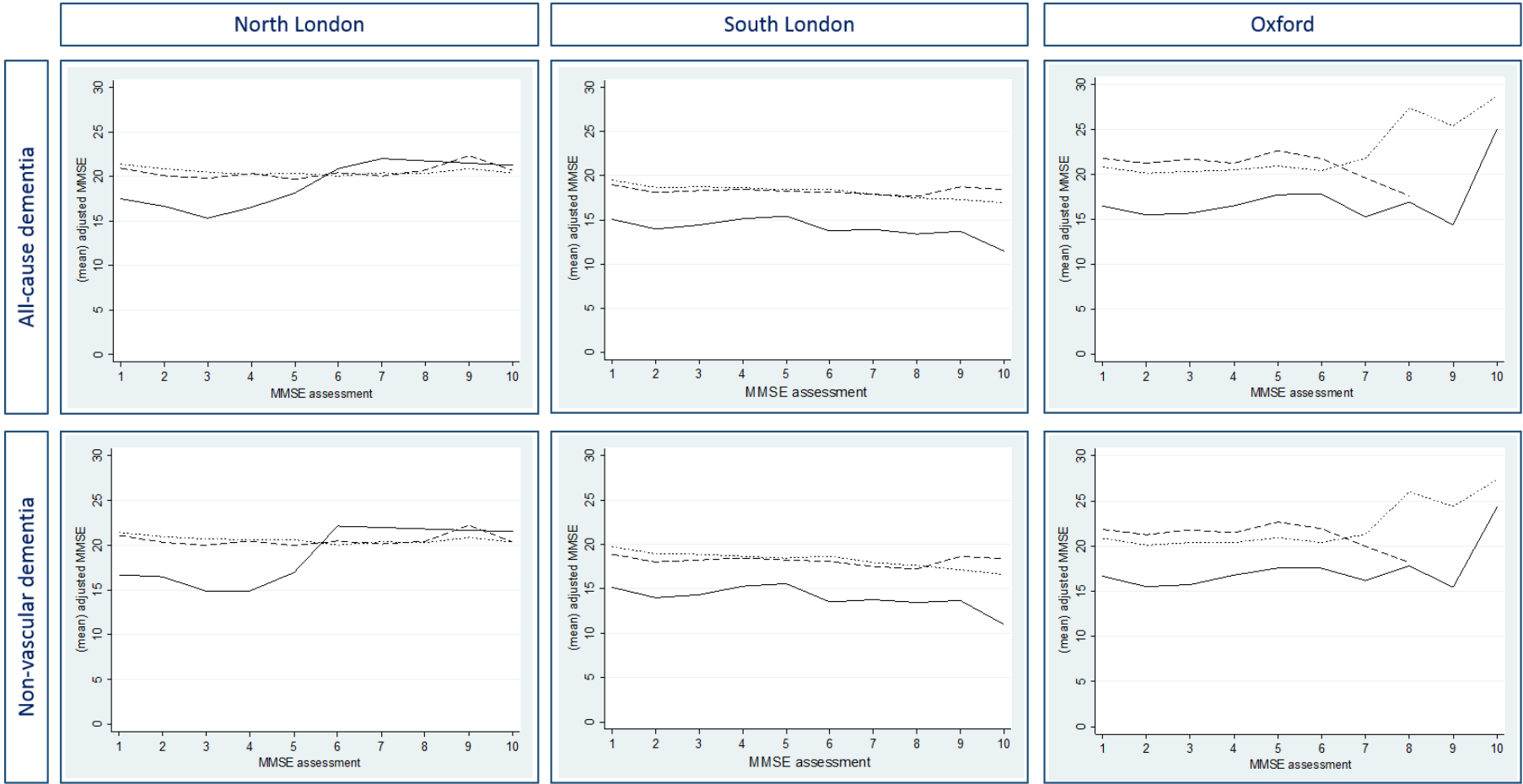
Scientists hope they have found a drug to stop all neurodegenerative brain diseases, including dementia.

In 2013, a UK Medical Research Council team stopped brain cells dying in an animal **for the first time**, creating headline news around the world.

But the compound used was unsuitable for people, as it caused organ damage.

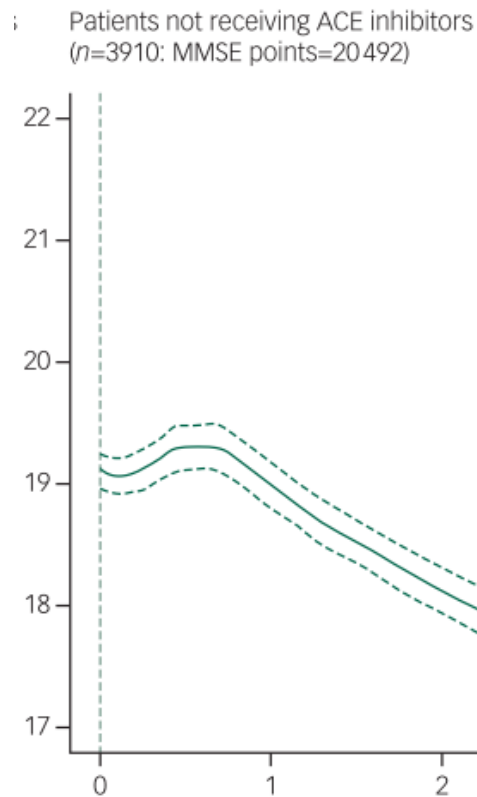
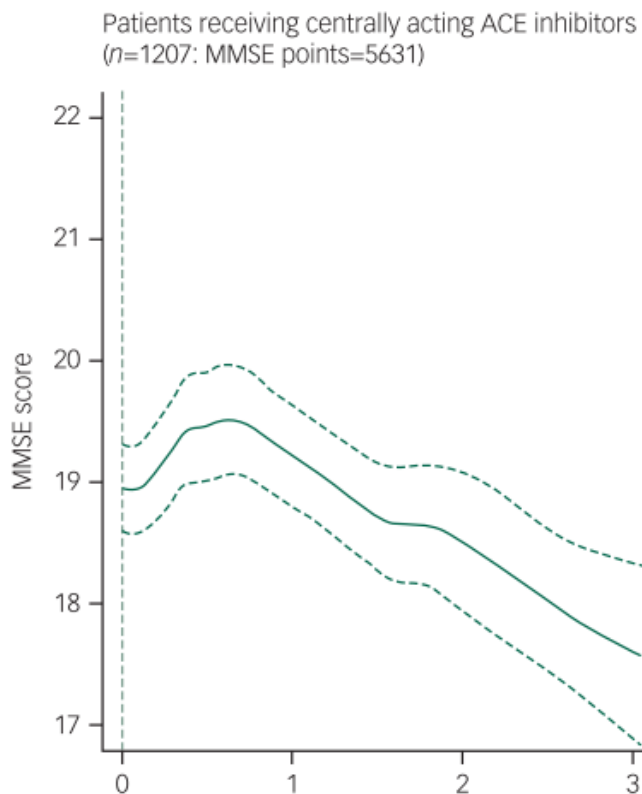
Now two drugs have been found that should have the same protective effect on the brain and are already safely used in people.





— Trazodone - - - - Mirtazapine Citalopram

Centrally acting ACE-inhibitors



Fazal et al., BJPsych Open, 2017



The future – towards a
personalised medicine
approach in dementia
