

The Uptake Of Pharmacological Treatments For Dementia In The UK: A Literature Review And Prescription Analysis

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Introduction – NICE guidelines

Dementia is a growing public health challenge in the UK, increasingly impacting individuals, unpaid carers, and health and social care systems. **Donepezil, galantamine, rivastigmine (Acetylcholine esterase inhibitors – AChE inhibitors)** and **memantine** are the four **pharmacological treatments** recommended by the National Institute of Health and Care Excellence (NICE) for use in the UK National Health Service (NHS). However, their real-world uptake remains unclear.

- NICE guidelines**

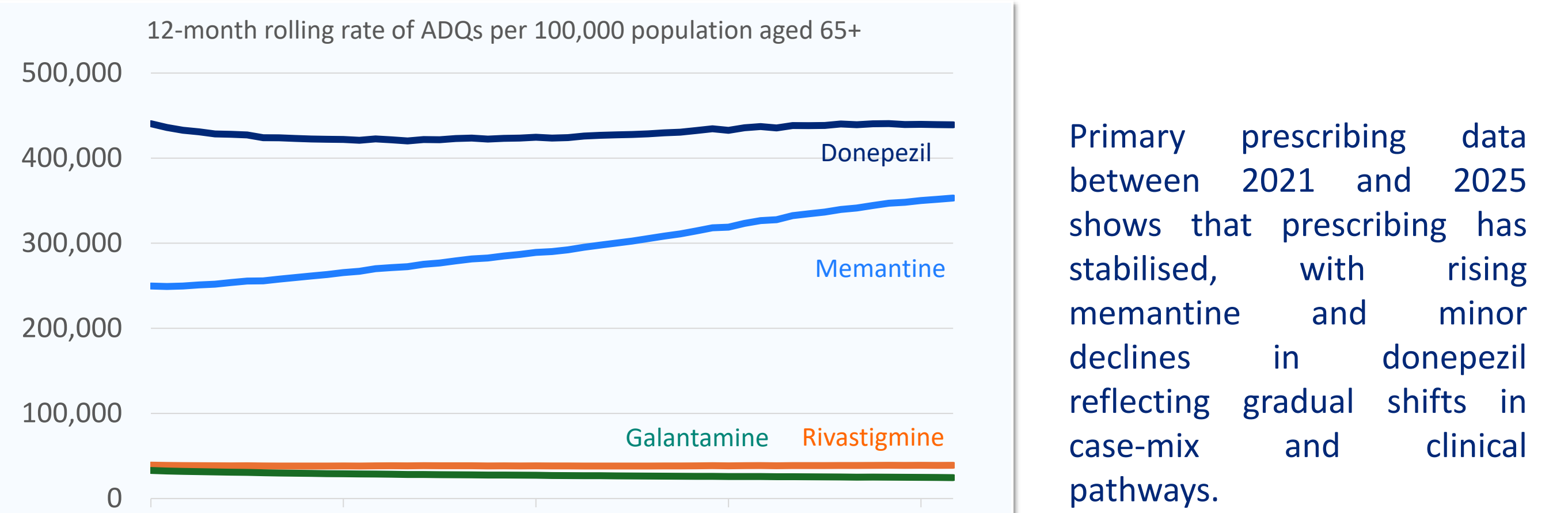
Donepezil, galantamine, rivastigmine are recommended for the treatment of **mild to moderate** Alzheimer’s disease, dementia with Lewy bodies or mixed dementia.

Memantine is recommended for the moderate to severe stages of the same indications.

Memantine should be considered **in addition to an AChE inhibitor** for **moderate/severe disease**.
- Treatment conditions:**

 - Initiating these drugs must be done **on the advice of a specialist** e.g. psychiatrist, geriatrician and neurologist. Although the **first prescription** may be made in **primary care**.
 - For people with Alzheimer's disease who are already taking an AChE inhibitor, **primary care prescribers may start treatment with memantine** without taking advice from a specialist.
 - Do not stop** AChE inhibitors for Alzheimer's disease **because of disease severity alone**.
 - AChE inhibitor treatment should be started with the drug with the **lowest acquisition cost**.

1. Change in prescriptions over time



- These changes follow increases in AChE inhibitors and memantine use between 1997 and 2021 identified in the literature.
- Studies from 2018 onwards²⁻⁷ showed that **between 64.7 and 76%** of people diagnosed with dementia are **prescribed AChE inhibitors or memantine**
 - Most patients are prescribed an AChE inhibitor, with **donepezil** used most commonly, likely due to its low cost^{2,3,5-9}
 - Rivastigmine and galantamine are consistently used less often (1-20% prescriptions).^{5-6,8,9}
 - Service-level variation is extreme** as offer rates range from **0% to 100%** across Memory Assessment Services.⁵
 - 4.7-10%** of people who are offered, **decline dementia medications**.^{2,5}

The prescribing of drugs for dementia has recently stabilised after historical growth in rates driven by policy changes and cost reductions due to patent expiry.

Conclusions

Current pharmacological treatments are used widely in the UK with cost driving the prescription of donepezil as the most commonly used drug. However, many inequalities exist in access, regionally, ethnically and socioeconomically. Furthermore, whilst initiation and acceptance of the drug treatments is strong, continuation of prescriptions is poor limiting the benefit these drugs can have long term. This may be due to factors including unpleasant side effects, lack of perceived benefit, or interrupted prescription due to service fragmentation. Local and national guidance should be improved and should emphasise persistence to help people living with dementia to receive continued benefit from these drugs. Better data and evaluation, looking at who is taking these drugs, is vital to fully understand and reduce the inequalities that occur around their use.

Literature review & Prescription analysis

- Systematic literature review**
- A systematic literature review was undertaken that included studies evaluating the uptake and access to donepezil, galantamine, rivastigmine and memantine.
- Searches of MEDLINE, Embase, PsycINFO and CINAHL were undertaken on the 9th July 2025 and combined with grey literature searches. Eligible studies were screened by two reviewers, with findings synthesised narratively due to heterogeneity.
- Population** – people with dementia and/or their carers.

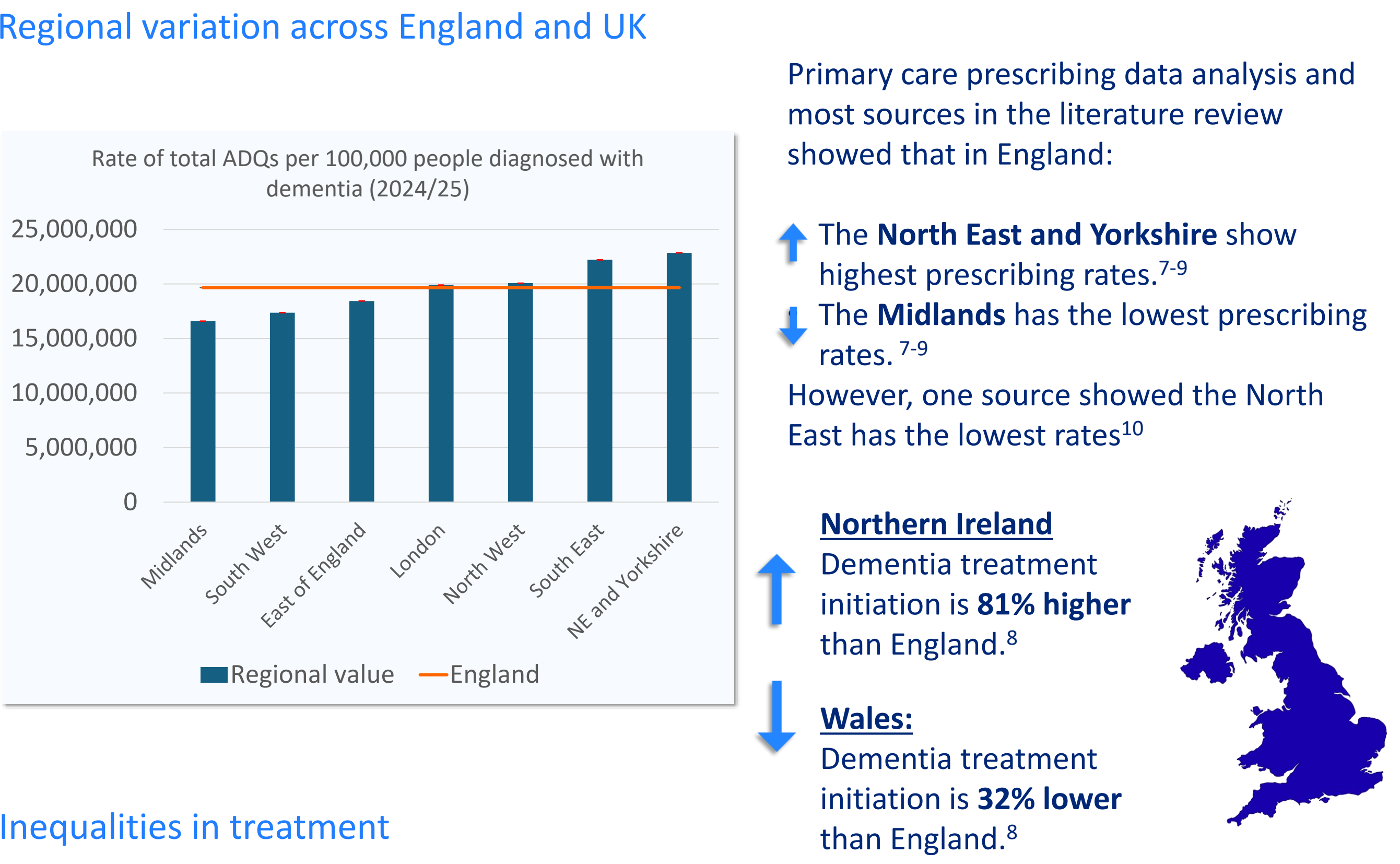
Interventions – donepezil, galantamine, rivastigmine and memantine

Outcomes – uptake and access of treatments, barriers and facilitators, system issues.

Study type - observational data, service audits survey and interviews.

- Prescription analysis**
- Primary care** prescription data from the **English Prescribing Dataset** covering **April 2020 to May 2025** were analysed.
- We show data for average daily quantities (ADQs) per 100,000 people aged 65+
- ADQs standardise prescribing data to compare medicines, doses, and populations fairly. It turns raw prescription quantities into a “daily-dose equivalent”.

2. Regional variation and inequalities



- Inequalities in treatment**
- Deprivation**

Studies show people from **more deprived** backgrounds have different access to dementia treatment⁷⁻¹⁰ – with most studies showing **poorer access**.⁷⁻⁹
- Ethnicity**

Studies show people from **Black and Asian backgrounds** have different access to dementia treatment^{2,7,10} – with most studies showing **poorer access**.^{2,7}

Significant inequalities exist in the access to current pharmacological treatments for dementia in the UK, with strong regional, ethnic and socioeconomic variation.

3. Continuation and combination therapy

- Drug continuation**
- More than half** discontinue treatment in the first 12 months⁶
- 12%** of patients who stopped their dementia medication **tried a second therapy**, and **1% tried a third**.⁶ Reasons for discontinuation may include unpleasant side effects, lack of perceived benefit versus expectations, or interrupted prescription.
- Drug continuation does not appear to vary with region or subtype diagnosis.⁸
- Combination therapy**
- Despite NICE guidance recommending the co-prescription of AChEIs and memantine at later stages of dementia, **less than 5%** of patients take both drugs together.^{2,5}
- Continuation of treatment is remarkably low, as is combination treatment, despite research and national recommendations highlighting the importance of both.

4. Qualitative data

- Facilitators to accessing treatment**
- Diagnosis**

To access these treatments it is necessary to have an accurate diagnosis of a form of dementia that NICE recommends these drugs for: Alzheimer’s disease, dementia with Lewy Bodies, Parkinson’s disease dementia or mixed dementia.¹
- NICE guidance changes**

2018 guidance broadened the pool of healthcare professions who could prescribe memantine to allow GPs to prescribe in certain situations. – this expanded access to drugs to more people.^{11,12}
- Cost reductions**

Dementia medications became a lot cheaper once the patents expired allowing the production of generic versions. This reduced the cost of medications by 81%.¹¹
- Barriers to accessing treatment**
- Resources and financing –**

Dementia receives fewer financial incentives than it used to (based on Quality and Outcomes framework).
- Waiting times**

Long and highly variable waits from referral to diagnosis can lead to delayed treatment.³⁻⁵ People in the UK wait on average **49 days** between diagnosis and the start of treatment.⁶
- Navigating the system**

People from deprived areas less able to navigate the healthcare system and are may be less able to attend appointments.⁸
- Local/regional guidance**

Local/regional guidance on the use of medications (formularies) is not always consistent with NICE guidance and means that there is variable access to dementia medications across the UK.¹²

References

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